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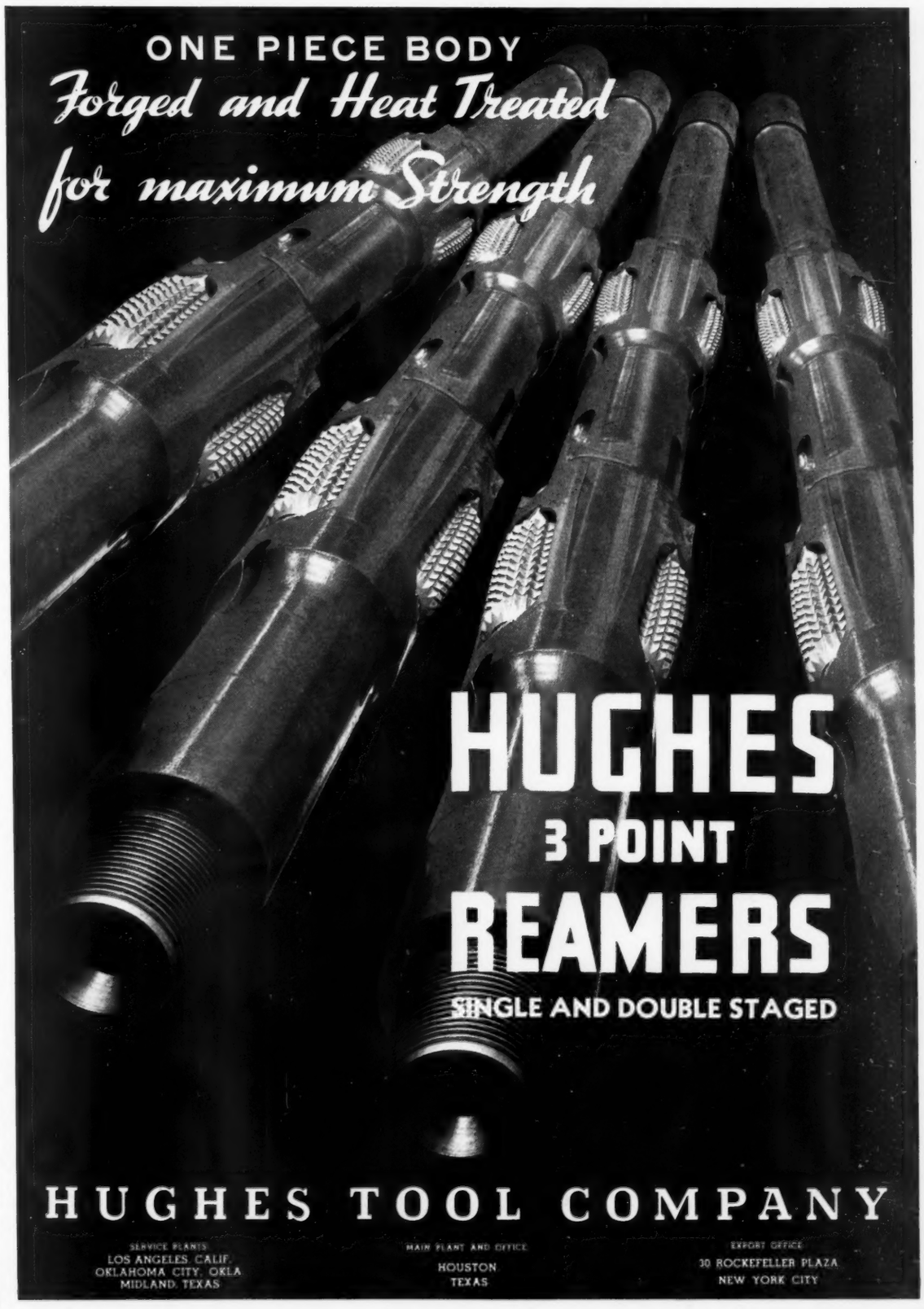

TULSA, OKLAHOMA MARCH 14, 1935

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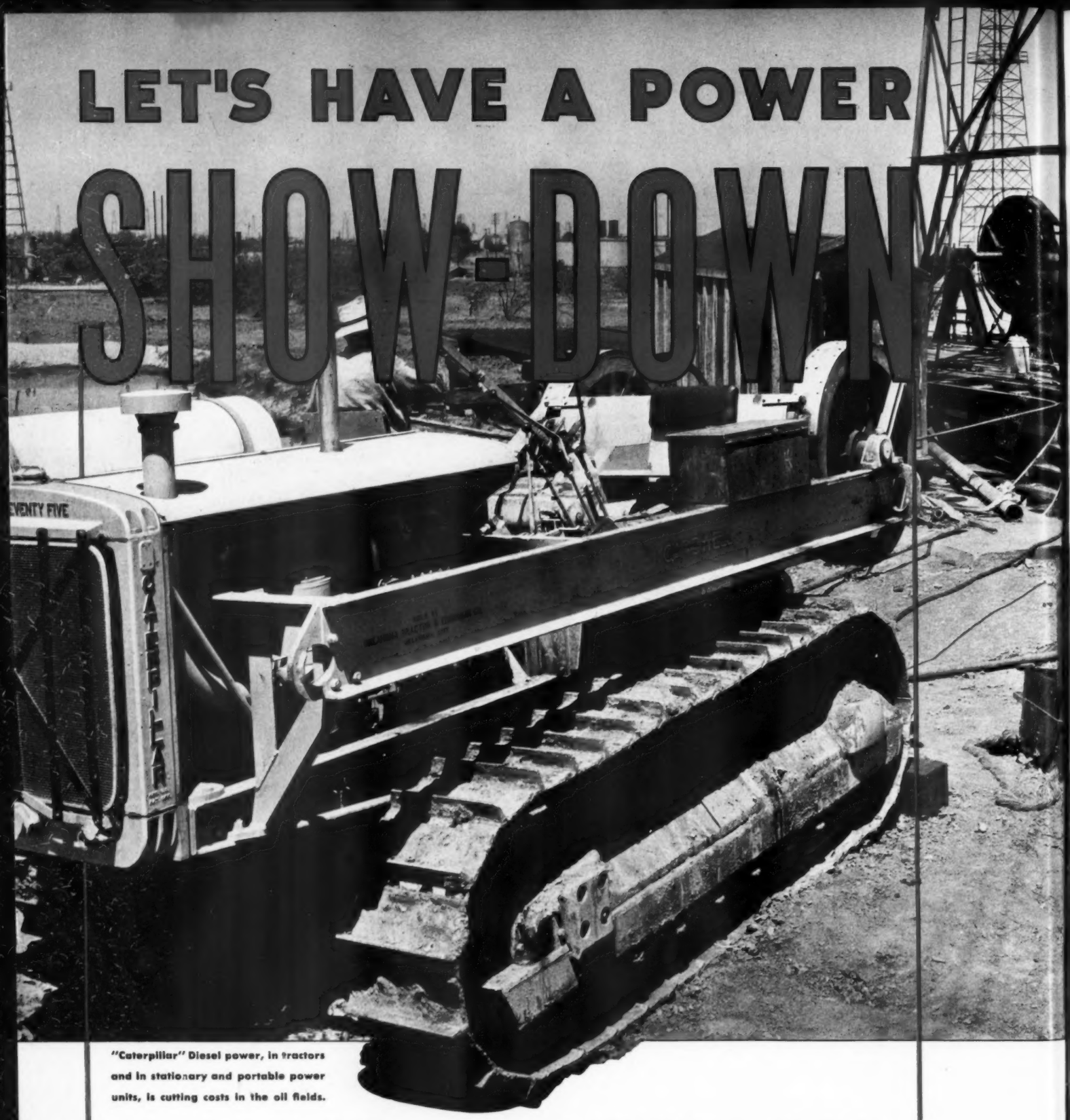

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THE OIL AND GAS JOURNAL

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OIL MAN'S CALENDAR

March

21-23—Wichita, Kans., American Association of Petroleum Geologists, annual meeting.
27-28—Kansas City, Mo., Missouri Oil Men's Association, President Hotel.
29—Hutchinson, Kans., Kansas Chapter, A.P.I.

April

4—Los Angeles, California Natural Gasoline Association.
4-5—Excelsior Springs, Mo., Western Petroleum Refiners Association, annual meeting.
8-13—Houston, Tex., Oil Equipment and Engineering Exposition.
10-11—Amarillo, Tex., American Petroleum Institute Mid-Continent Production Division, spring meeting, Herring Hotel.
10-11—Indianapolis, Ind., Indiana Independent Petroleum Association, spring convention, Hotel Severin.
11-13—Dallas, Tex., Petroleum Industry Electrical Association, Baker Hotel.
18-19—Cleveland, Ohio, National Petroleum Association, semi-annual meeting, Hotel Cleveland.
25-26—San Antonio, Tex., American Petroleum Institute Southwestern Production Division, Plaza Hotel, spring meeting.

May

1-3—Tulsa, Natural Gasoline Association of America, Hotel Tulsa.
6-9—Memphis, Tenn., Natural Gas Department, A.G.A., Peabody Hotel.
8-11—Tulsa, Oil and Gas Power Division of A.S.M.E., Mayo Hotel.
14-16—Tulsa, American Petroleum Institute, fifth mid-year meeting, Mayo Hotel.

June

20-21—State College, Pa., Pennsylvania Grade Crude Oil Association, annual meeting.

September

25-27—Atlantic City, N. J., National Petroleum Association, annual meeting, Hotel Traymore.

November

4-5—Dallas, Tex., I.P.A.A., annual convention.
11-14—Los Angeles, American Petroleum Institute, sixteenth annual meeting, Biltmore Hotel.

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OUT-DIGS and
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ROCK BITS

Markets Continue to Gain Strength as Conditions in East Texas Give Evidence of Improvement

By ANDREW M. ROWLEY

DESPITE some uncertainty in the refined oil market structure along the Atlantic Coast, due chiefly, it seems, to increased runs to stills with a larger addition to stocks than many think is healthy at this period, conditions in the Mid-Continent and Chicago areas continue to improve and show real strength. Even in the East an optimistic tone is becoming evident as reports from East Texas indicate a substantial falling off in hot oil production with a resultant shutting down of small refineries which are regarded as using "hot" oil in their operations. Eastern operators feel that as soon as assurance is given that "hot" oil production is under control there will be a substantial buying on the part of major refiners to remove excess gasoline which has been overhanging the market and that runs to stills will be regulated to bring about a more favorable stock situation.

Kansas continues to be the outstanding center of field operations in the country with new producing areas being opened and drilling operations increased to further develop sections around discoveries. Eight tests are contemplated in Southwestern Barton County where a new pool was opened recently while the Burrton Pool in Reno County continues to yield exceptionally good producers each week, two completions during the past week flowing 3,043 barrels in 17 hours and 3,951 barrels in 24 hours respectively. Three completions in Rice County averaged 1,300 barrels per well and a new productive spot was discovered in Rooks County.

The Fitts Pool in Oklahoma has definitely proved itself as one of the largest potential producers of oil in the country, potential tests being conducted there showing 57 Bromide Sand wells with a potential daily average of 3,500 barrels each, with 63 completions in the pool and 59 operations under way. The opening of a section of the residential district of Oklahoma City to drilling has resulted in the staking of a number of new locations there.

In the Texas Gulf Coast area operators think a second producer has been found in the Hastings Field of Brazoria County where the discovery well has been recompleted and made 159 barrels the first 24 hours. A test on the south flank of Batson Dome opened the deepest pay horizon found on the dome when it flowed 5,500 barrels.

What may be a connection between the Cooper and Jal Pools in New Mexico was completed last week by Phillips Petroleum Company when its test between the two pools showed for 150 barrels an hour. Interest in Southwest Texas is centered in several scattered wildcats. In California, the seamen's strike is tying up tanker traffic. Producers and refiners are trying to determine whether crude oil production allowables for the state are too high or too low.

Crude Oil Production in the United States

Estimated daily average production for the week ending March 9, a comparison with previous week and the federal allowables follow:

		Federal allowable	
Oklahoma—	March 9	March	March 2
Oklahoma City	136,450	.....	127,750
Seminole-St. Louis	85,575	.....	86,300
Remainder of State	235,625	.....	243,775
Total Oklahoma	457,650	491,000	457,825
East Texas—			
Lathrop	160,224	.....	160,763
Kilgore	150,341	.....	152,813
Joiner	148,617	.....	150,529
Total East Texas	459,182	.....	464,105
West Texas	148,865	.....	143,885
North Central Texas	89,554	.....	89,729
Texas Panhandle	55,967	.....	62,873
East Central Texas	52,521	.....	51,247
Gulf Coast—Texas	178,771	.....	177,256
Southwest Texas	59,983	.....	59,870
Total State of Texas	1,044,843	1,020,100	1,048,965
Kansas	143,625	139,700	146,380
North Louisiana	22,525	.....	22,980
Gulf Coast—Louisiana	95,873	.....	94,502
Total Louisiana	118,398	110,500	117,482
Arkansas	30,430	31,900	30,070
Eastern Fields (except Michigan)	105,000	105,500	104,000
Michigan	31,927	31,600	33,334
Rocky Mountain area	92,940	97,400	93,220
California—			
Santa Fe Springs	39,900	.....	35,900
Long Beach	70,600	.....	58,500
Mountain View	12,700	.....	11,500
Elwood	9,100	.....	9,400
Kettleman Hills	67,350	.....	67,800
Remainder of State	321,500	.....	277,100
Total California	521,150	492,600	460,200
Total United States	2,545,963	2,520,300	2,491,476

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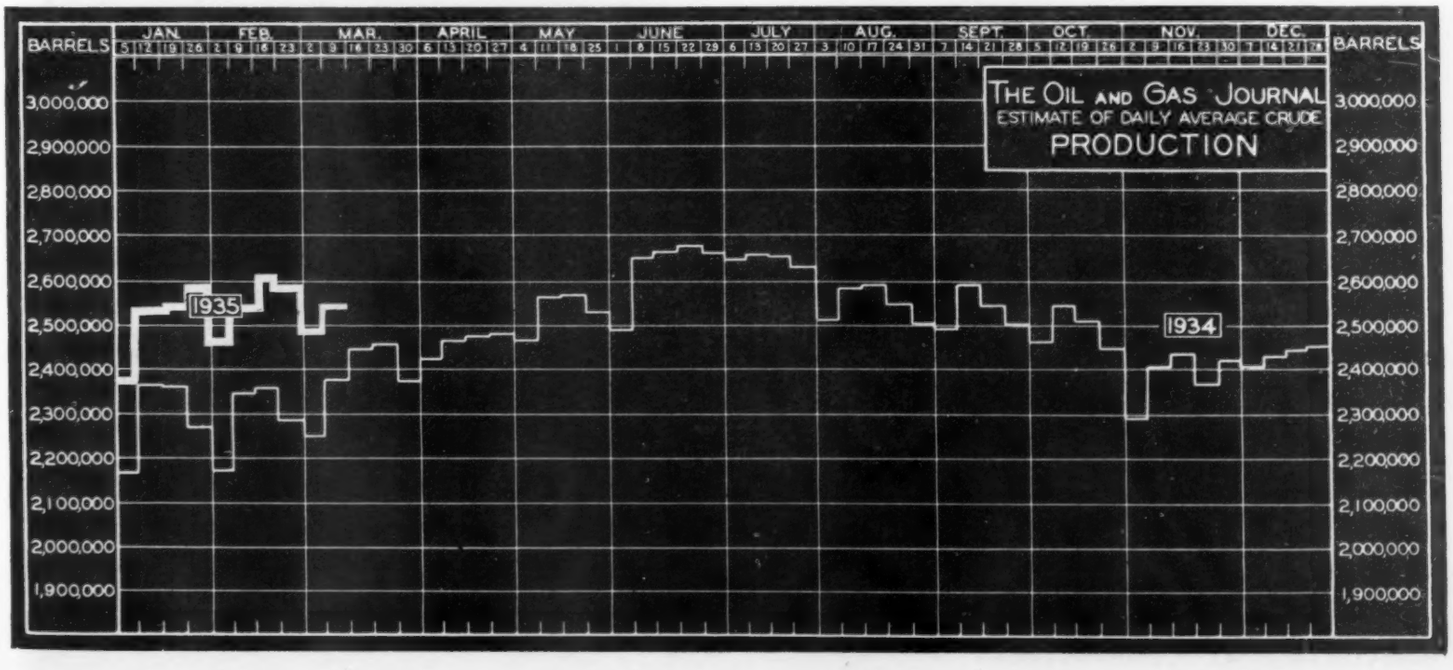


The Bulletin Board

The Interstate Compact, adopted at the Dallas conference, has been passed by both houses of the legislature in Oklahoma and signed by Gov. Marland. It has been reported favorably by committees of the Texas legislature and is expected to be passed and signed by Gov. Allred within the near future. Action by Texas will make it effective, as soon as Congress adopts consent legislation, as it already has been enacted into law in New Mexico.

•

Oil Exchange Trading in gasoline and crude oil futures, during the first week of its inauguration by the Commodity Exchange, came up to expectations of those interested in the exchange and the market in both products was fairly steady, with sentiment generally bullish regarding the crude market for summer and fall delivery.

•

Runs To Stills in the Mid-Continent area during March are about 2,700 barrels daily greater than during February and 14,000 barrels daily less than in March, 1934. Refinery activities in East Texas are declining. Building and plant improvement continues.

•

Natural Gasoline stocks increased 10,000,000 gallons during January due to additions to storage made in California, all other areas recording withdrawals from storage.

•

Rumanian Crudes yield residual products that are exceptionally easy to crack and gasolines of unusually high octane value may be manufactured from these crudes.

•

Industrial Representation Plan adopted by the Standard Oil Company (New Jersey) 16 years ago, has proved especially successful in the operations of that company and in the welfare of its employes whose interests are protected in sickness, accident, unemployment, old age and death.

•

East Texas should be produced in such a manner that the average pressure would never fall lower than about 1,000 pounds per square inch, according to extensive engineering data accumulated and checked regarding conditions in the field.

•

Hot Oil Production in East Texas is decreasing with overproduction in the area estimated at 35,000 barrels daily last week and all indications that the quantity would be less this week. Six refineries ceased operations last week and runs to stills decreased 7,200 barrels daily.

Federal Control was the principal subject discussed at a meeting of independent oil men at Wichita Falls, Texas with Wirt Franklin and Col. E. O. Thompson, chairman of the Texas Railroad Commission, among the speakers.

•

Geologists from throughout the United States will assemble in Wichita, Kansas, March 21-23 for the twentieth annual convention of the American Association of Petroleum Geologists and to get first hand information on the State of Kansas which is one of the country's most active oil development centers at this time.

•

Celluloid Shields are being used to protect pipe lines from corrosion and soil stress, with satisfactory results. The celluloid is applied by hand and that used at this time is one one-hundredth of an inch thick. A special cement is used to seal tightly the edges of the wrapped celluloid.

•

A Public Utilities control bill setting up a three-member commission with original jurisdiction over rates and services in every community has been reported favorably by a committee of the Texas legislature.

•

N. I. R. A. Continuation for two years seems assured with inclusion of a modified and changed code for the petroleum industry.

•

Federal Legislation vesting control of the petroleum industry in Federal authority does not have much chance of passage at this session of Congress according to close observers who believe congressional opinion has veered sharply away from that type of laws.

•

Refinery Allocation methods are being studied seriously in an effort to correct existing deficiencies and to make the plan more effective.

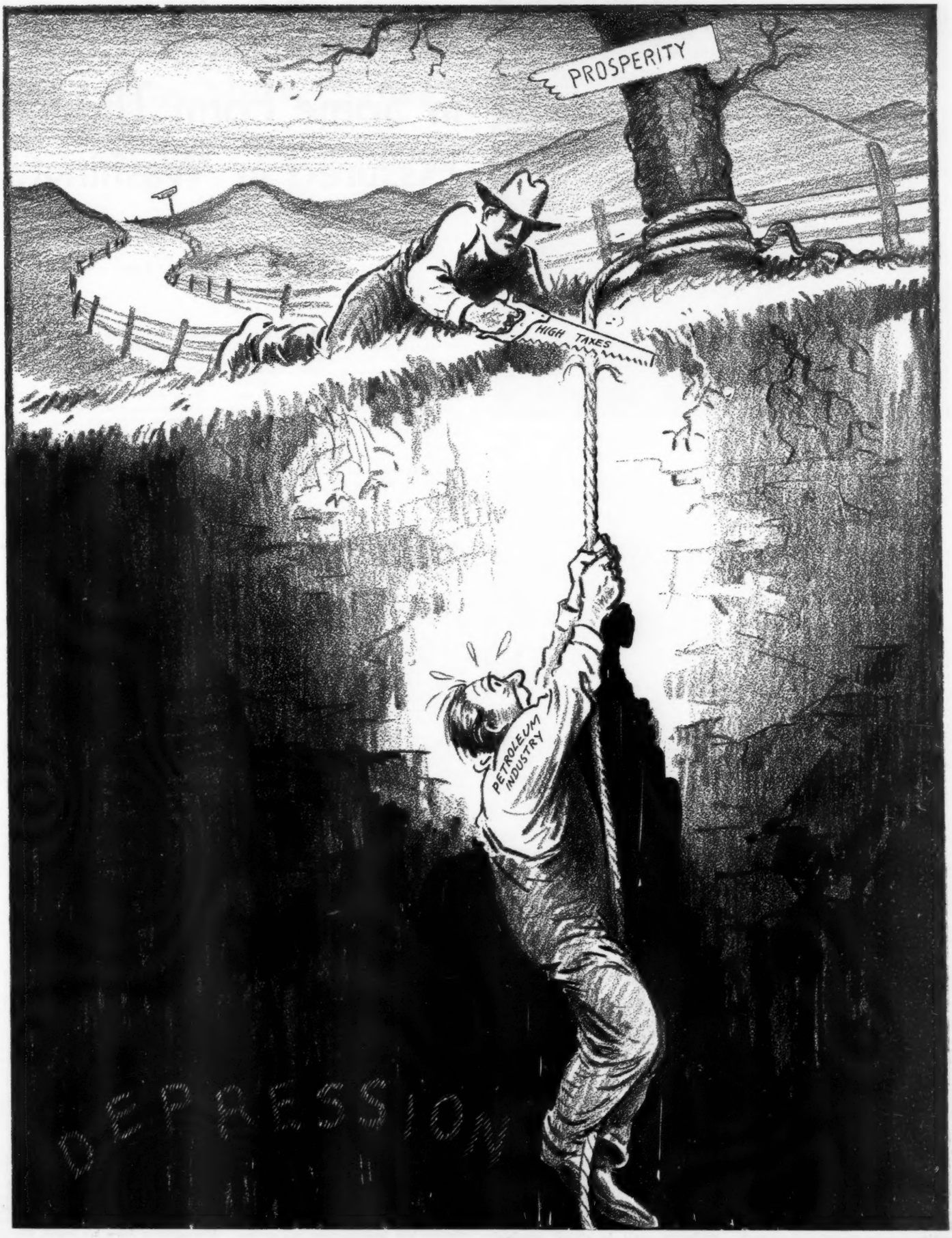
•

Oil Operations in January were not on as favorable a basis as during the latter part of 1934 due to greater crude oil production under larger Federal allowables and to the fact refiners increased runs to stills with the result the addition to stocks was more than recommended in allocations.

•

Proven Reserves of petroleum in the United States at the first of this year were estimated at 13 billion barrels with the "law of capture" resulting in a large loss and seriously handicapping efforts of the industry to intelligently regulate petroleum and natural gas production.

The Billion Dollar Handicap



—Drawn exclusively for The Oil and Gas Journal

Photo by John C. Day.

Continuation of Code in Some Form Thought Assured in Washington

By HUGH D. MALLON
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Mar. 11.—Continuation of control of the petroleum industry by the federal Government for at least two more years seems practically assured as consideration of the extension of the National Industrial Recovery Act for that period begins in the Senate, although conjectures as to the form in which the act will be extended point to its modification in some lines of industry.

Regardless of the form in which the bill passes, the existing petroleum code is due to be revised, amended, modified and changed in several respects to meet defects and deficiencies which have become apparent. Probably the only sections which will not be greatly changed are those dealing with production and production control.

Among producers there seems to be no complaint as to the operation of the control features. Although the legality of some of the provisions have been questioned by numerous lawyers in the industry, and held unconstitutional by Federal District Judge Bryant, the preponderance of opinion in the producing branch seems to be that there should be no change in the nature of the production features, although minor changes in the language may be expected for the purpose of clarification.

For these reasons it is safe to assume production control under the administration of the code will be continued. The possibility of any other legislation vesting control of the industry in federal authorities is very slight, as congressional opinion apparently has veered sharply away from that type of laws.

Refinery Control Revision

Refinery control as provided for in the code, and administered almost entirely by the industry, is expected to have a thorough going over. Some defects have come to light and have occasioned considerable thought to members of the refinery subcommittee, as well as by members of the Refinery Board of Review.

As the refinery sections are now set up, the allowable gasoline production for the country is set by the oil administrator. This figure is then turned over to the national co-ordinator for refinery operations, who then calls a meeting of the district allocators and allocating agencies, at which the national figure is split up into regional district allocations.

At this point the district allocators and allocating agencies apportion the amount designated for their district to the individual refineries operating in that area. These results are arrived at by estimates submitted to the district authorities of the amount of gasoline requirements necessary for each refinery, and it has been found the estimates submitted are not always accurate.

Each refiner, it appears, has been asking for actual gasoline requirements and then adding to this total an amount which it is claimed will be new business. The allocating agency is, in numerous instances, unable to know whether the amount requested is the actual amount needed and frequently an allocation is granted which allows the production of more gasoline than is necessary, thereby throwing the gasoline market in that area out of line.

As a result, numerous appeals have been brought to the Board of Review which could have been taken care of by the local allocating agency if a different method of allocating had been followed, or if there was some power in the set-up to penalize those who submit excessive or erroneous requests for allocations.

Penalty Proposed

One remedy which is being seriously considered by some is that the national co-ordinator be given authority to penalize the refinery in case they submit excessive bids for allocations, and to have the same power over district allocating agencies if such agencies submit erroneous requests. The penalty, it is claimed, might be the granting to the national coordinator, or the Board of Review, of authority to restrict gasoline production in the refinery affected, or the district, whichever has offended, the amount of excess gasoline produced during the period.

While the fact that such excess allocation was granted may not become apparent for two months after the gasoline is produced, it is believed this would have a salutary effect on the recalcitrants. It would force them to take more care in their estimates, because two months hence the penalty which would be inflicted might do the individuals more harm than the present excess supply would warrant.

Although production of gasoline in excess of allocations granted has not been very great there has been some. No effort, however, has been made to enforce the allocations through legal channels, and it is felt if some action along these lines were forthcoming the slight overproduction could be almost completely stopped.

The marketing section has been probably the most criticized part of the code, but there have been no constructive suggestions as to what provisions should be altered, amended or deleted to make the provisions more workable. The main contention, coming from practically everyone in the industry, is that the present provisions should be enforced by court action. Only a negligible number of cases have been taken to the courts, but the Department of Justice has intimated it is now ready to get down to business in earnest.

It is probable that within the next few weeks several cases will be brought, most of them for injunctions and restraining orders rather than criminal proceedings. The department is of the opinion enforcement lies in enjoining the illegal acts because if, later, the law is held invalid or for some other reason the injunction is set aside, such later action does not absolve the defendant from contempt proceedings for violating the injunction while it was in force.

President Roosevelt laid down this policy in his message to Congress recommending the continuation of N.R.A. for two years when he said that enforcement did not mean the putting of persons into jail, and inferred his opinion was that fines and injunctions would prove more beneficial and practical.

Two sections of the marketing provisions have come in for much criticism, both from the industry and the administration. It is probable these two sections, Rule 4 and Rule 6 of Article 5, will be deleted when the industry and the administration get around to revising the code, although there is some agitation for the strengthening and clarifying of these provisions.

Marketing Sections

Rule 4 provides that refiners, distributors, jobbers, wholesalers, retailers and others engaged in the sale of petroleum shall not sell any refined products below the cost of manufacturing and transporting it into the state where they are offered for sale. Only one action has been brought under this rule, one in Texas, which the Government never brought to trial because of the questionable legality of the provision. For this reason the question of selling below cost has never been tested in the courts.

Rule 6 holds that each branch of an integrated company must stand on its own feet. In other words, profits derived from production of crude oil, or from pipe line transportation, shall not be spread over the refining and marketing branches of the integrated company to obtain excessive profit therefrom. Such profits from production and pipe lines, for instance, could not, under the terms of this rule, be applied to cover losses sustained in the refining and marketing of petroleum products. No action whatsoever has been brought under this section, and no effort made to enforce it. Lawyers generally are of the opinion this section could never be enforced in any manner, but some support is being manifested by administration officials for this type of regulation. It will probably be deleted entirely when the code is revised.

Practically all of the other marketing provisions, while they may be controversial, are claimed to have the support of a large majority of the industry, and, if properly enforced, it is believed would prove of great benefit. Minor changes are expected to be made in most of these sections, but practically all amendments will be for clarification.

Labor Provisions

Provisions governing hours and wages are not in any settled state yet. Recently the Petroleum Labor Policy Board held extended open hearings on revision of the labor provisions. No decision has yet been reached by the board on the demands submitted by the labor organization.

Among the revisions asked were a flat 30-hour week with no reduction in weekly earnings, a minimum wage of 60 cents per hour for common labor, and equal representation on the Petroleum Labor Policy Board, the Planning and Coordination Committee and the Petroleum Administrative Board.

Possible New Set-up

With all this conjecture concerning the future of the code, rumors are floating around that after June 16, the date of the expiration of the present N.R.A., a different administrative set-up may be put into effect. Recent statements of various government officials, the Cole congressional subcommittee, and the National Resources Board advocating the setting up of a separate, independent governmental agency to administer governmental regulations affecting the natural resources industries, such as coal, gas and oil, are gathering congressional sentiment.

This phase of the situation, if carried out, will probably be done by specific direction of Congress in extending the Recovery Act. However, while it is anticipated that attempts to do this will be made at this session of Congress, it would probably take another year or two before enough strength could be mustered on Capitol Hill to put it across.

Whether this would mean the abolition of the Petroleum Administrative Board, or merely the merger of that board with the natural resource agency, is not known, but the Cole subcommittee suggested that the Bureau of Mines might be revamped and set up as a separate agency to serve in that capacity.

In the preliminary conferences carried on by the President and numerous governmental officials previous to the recommendation for extension of the N.R.A. no specific recommendations were made by the petroleum administration on legislation to cover the petroleum industry. Administrator Ickes has stated. For this

(Continued on Page 32)

Data on Water Drive in East Texas Show Proper Method of Producing

By T. V. MOORE
Research Engineer, Humble Oil & Refining Co., Houston, Tex.

The conditions in the East Texas reservoir have been closely studied since the early life of the field, which has resulted in the accumulation of a wealth of data on the properties of the oil and gas produced, the nature of the reservoir, the sources of the energy by which the oil is produced, and the behavior of the field under varying rates of withdrawal. The modern technique of measuring subsurface pressure was developed at about the same time that the field was discovered, and a complete and accurate record of the subsurface pressure has been kept. The U. S. Bureau of Mines undertook an investigation of the properties of the oil and its dissolved gas under the conditions existing in the producing sand, and additional information of this kind has been obtained in the laboratories of the Humble Oil & Refining Co. This information has been analyzed and reported in a number of papers by various authors.

Perhaps the most significant of these data are the subsurface pressure records, which in general show:

1. That the average reservoir pressure which was originally 1,625 pounds per square inch (weighted for area) has never fallen below 1,220 pounds per square inch, as may be seen from Figure 1. This has resulted in maintaining the productivity of the wells and prolonging their flowing life, even though 644,000,000 bbls. of oil were produced prior to January 1.

Production and Pressure

2. The rate of production affects markedly the rate of decline in pressure. Pressures fall rapidly under high rates of withdrawals, and build up again when the rate is reduced. This indicates that the energy of the field is being replenished from some external force.

3. The pressure within the field, corrected to a common datum, is highest along the western boundary of the field and lowest along the eastern boundary. The pressure gradient across the field is a function of the rate of flow as may be seen from Figure 2, prepared from data presented by Reistle in a paper read before the 1934 annual meeting of the American Petroleum Institute at Dallas. The pressure distribution is not appreciably affected by heavy withdrawals from small areas. This shows that the oil is migrating from east to west across the field under the influence of some force other than the energy of the fluids within the reservoir itself.

These facts alone suggest that the field is under water drive, the water moving in from the Woodbine basin at the western edge of the field, driving the oil eastward as it encroaches into the oil reservoir. The data on subsurface samples obtained from the field verify this conclusion. These samples show that although the oil contains about 375 feet of gas in solution per barrel of oil, this gas is not released until the pressure becomes less than 740 pounds per square inch gauge. This may be seen from Figure 3, which was prepared from data obtained in the laboratory of the Humble company. It will be observed that this checks closely the results obtained by Lindsly of the U. S. Bureau of Mines. This experimental evidence checks calculations made on the solubility of the gas, and is substantiated by the behavior of the wells during the course of production. From these data, important conclusions may be drawn. First, the fact that the reservoir pressure has been maintained means that the space originally occupied by the oil that was produced has now become filled with some other substance. Second, since the pressure has always been maintained, in all parts of the field, at a value higher than the saturation pressure, free gas could not have been the substance replacing the oil. Third, the maintenance of pressure can only be explained by water intrusion or a decrease in the porosity of the reservoir rock.

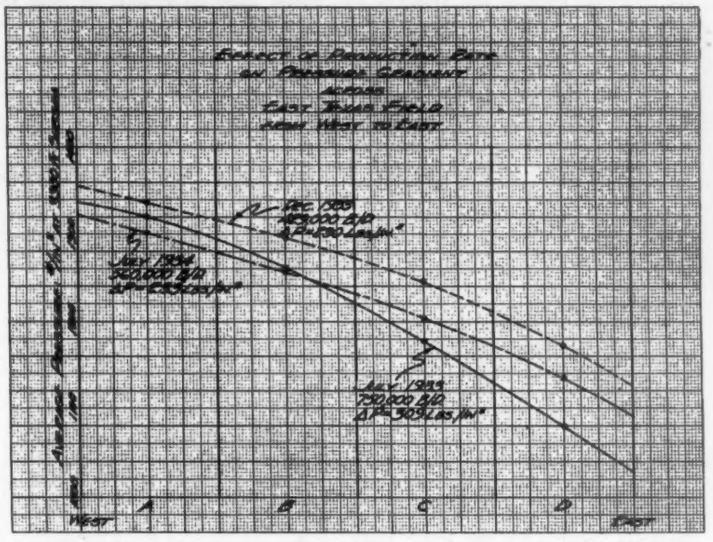


Fig. 2

High Degree of Permeability

It is known that the Woodbine sand is filled with water, and that the sand is permeable. It is, of course, impossible to evaluate the average permeability of the entire sand body, but such data as are available indicate that it is of the order of magnitude of 1,000 millidarcys. Comparatively, this is a high degree of permeability. Consequently, as soon as the pressure in the field is lowered, because of the production of oil, water will enter the field. The only question is that of the rate at which it will enter, and the mechanism by which this occurs. Permeable as the Woodbine sand is, it is not capable of transmitting water from the outcrop to the field in sufficient quantities to replenish the pore space occupied by the oil removed from the field. For this reason, as well as from a consideration of the structure of the Woodbine basin, it is inconceivable that the water entering the sand flows through the entire Woodbine basin.

However, it is known that the fluids in the Woodbine sand are elastic, and, therefore, that they are capable of movement by virtue of their own expansion when the pressure is reduced. The exact determination of the expansive power of these fluids is impossible; the only incontrovertible statement that can be made in this regard is that the expansibility of the fluids in the Woodbine sand should not be equal to the expansibility of pure water, which is 2.38×10^{-6} square feet per pound.

Water Contains Gas

The water in the Woodbine contains dissolved gas. While the water immediately adjacent to the oil body probably does not contain enough gas to be completely saturated, it is probable that throughout most of the sand the water is saturated with gas. The expansibility of gas-saturated water, at a saturation pressure of 1,400 pounds per square inch, is about 11×10^{-6} square feet per pound. In addition to the expansibility of the fluids, the expansibility of the sand itself must be considered, which will increase the apparent expansibility of the water by about 1.8×10^{-6} square feet per pound. The probable presence of undiscovered pockets of free gas, and the possible supply of fluid from formations above and below the Woodbine must also be considered in arriving at a value for the average apparent expansibility of the Woodbine fluids. Thus, it appears that the water that moves into the East Texas oil reservoir receives its energy from the expansion of the fluids in the sand to the west of the field, and the flow is in the so-called "unsteady state." Flow in the unsteady state is characterized by

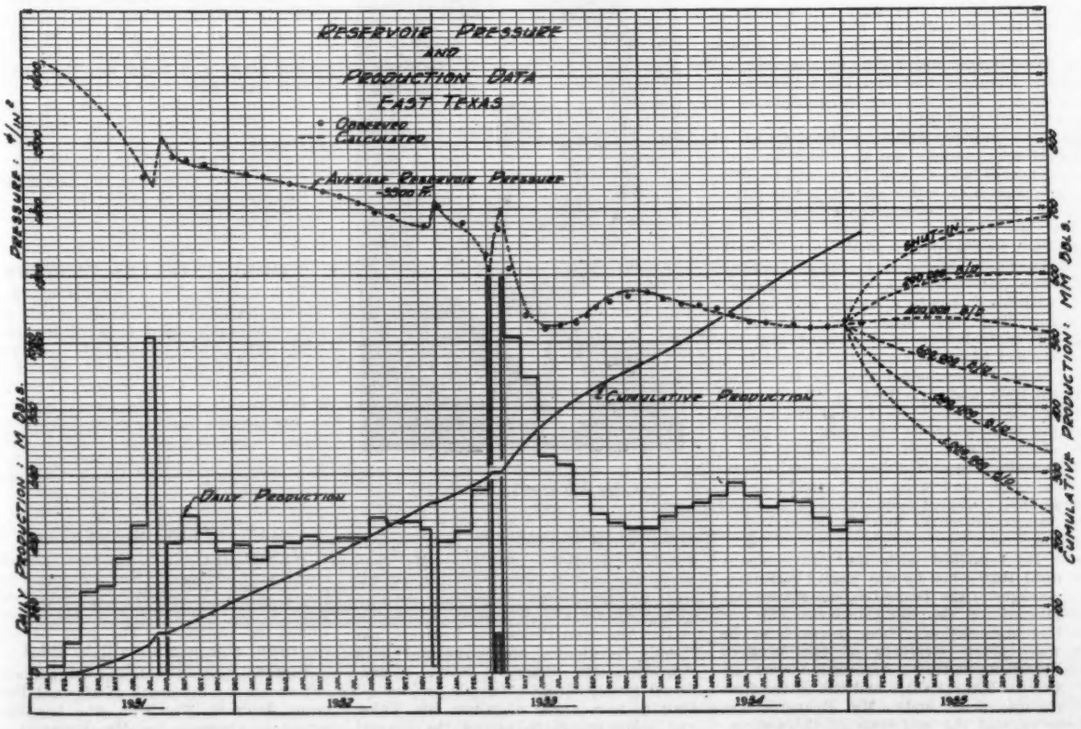


Fig. 1

the fact that pressure and velocities at any point in the system are continuously changing. It is, in many respects, analogous to the flow of heat in bodies that are being heated or cooled.

In order to determine whether or not this mechanism would explain the behavior of the East Texas reservoir, Schilthuis and Hurst have made an analysis of the flow in the unsteady state in an hypothetical reservoir of rectangular shape, of uniform sand filled with an homogeneous fluid. Physical constants, except compressibility, and dimensions of this reservoir were assigned values which as nearly as could be determined were equal to the average value in the Woodbine basin. These were:

Permeability, 800 millidarcys.
Porosity, 25 per cent.
Thickness, 200 feet.

For the indeterminable factor of compressibility, these authors used 27.5×10^{-6} square feet per pound. The mathematical equations developed were expressions of D'Arcy's law, which states that the velocity of flow at any point in the system is directly proportional to the change in pressure per unit length along the path of flow, and an assumption that the expansibility or the percentage change in volume per unit change in pressure was constant. It was found that the behavior of this hypothetical field followed, almost exactly, the behavior of the East Texas Field. Referring to Figure 1, the dashed line showing the variations of pressure was the calculated curve, while the points shown were the observed average field pressures. From this analysis, it has been possible accurately to predict the variations in pressure that occur in the East Texas reservoir. Such predictions for the year 1935 are shown in Figure 1.

Fluid Expansion

The excellent agreement between the calculations and the observations is convincing evidence that the flow is indeed of this type; that water is entering the field by some sort of fluid expansion.

It should be emphasized that the compressibility shown does not necessarily represent the true compressibility of the fluids in the Woodbine sand—it is the compressibility of the fluids in the hypothetical field of uniform sand thickness and permeability whose behavior duplicates that of the East Texas Field. Furthermore, the compressibility in the hypothetical field is related to the other constants used, and depends upon the choice of values used for these other constants. Thus, if the permeability of the hypothetical field were assumed to be 2,400 millidarcys, the compressibility used would be reduced to about 9×10^{-6}.

The only data that are apparently not in accord with this explanation is the fact that the encroachment of water into some 427,000 acre feet of sand has not cause a greater number of wells to produce water. However, there are approximately 800,000 acre feet of the original clean oil sand not penetrated by any wells. Furthermore, it may be possible, under certain conditions, for wells in which the encroachment of water has already reached the bottom of the well, to continue producing pipe line oil for some time. In view of the preponderance of evidence favoring the water drive theory, it appears that this objection is inconsequential. In all probability, most of the water has entered the sand in the center of the field, in which the wells are not drilled deep enough to produce water.

Reduction in Porosity

The suggestion has been made that as much as 75 per cent of the pore space originally occupied by oil that has been produced has been filled by compaction of the reservoir rock itself. Undoubtedly, reduction of the fluid pressure in the Woodbine sand will increase the compressive stress in the sand, since less of the weight of the overburden will be supported by fluid pressure and more by mechanical stress in the sand grains. This, in turn, will decrease the porosity to some extent. C. E. Reistle has conducted some experiments on cores from the East Texas Field in order to determine the magnitude of this reduction in porosity, which were reported in a personal communication. This was accompanied by fitting a capillary tube into a core, and sealing all external pores and joints with several coats of lacquer. The sealed core was then put into a pressure vessel from which the capillary tube extended through a stuffing box. Hydrostatic pressure was then applied to the core, while the fluid within the pore spaces was maintained at atmospheric pressure. Thus, the hydrostatic pressure applied to the core was balanced by compressive stress in the sand grains. Between the pressure range 1,000 to 1,500 pounds per square inch, the reduction in pore space was about 0.024 to 0.029 per cent per 100 pounds per square inch. This is about what would be expected from the elasticity of the quartz grains, and, in so far as the ability to force fluid from the pore spaces is concerned, would have somewhat less effect than the compressibility of pure water.

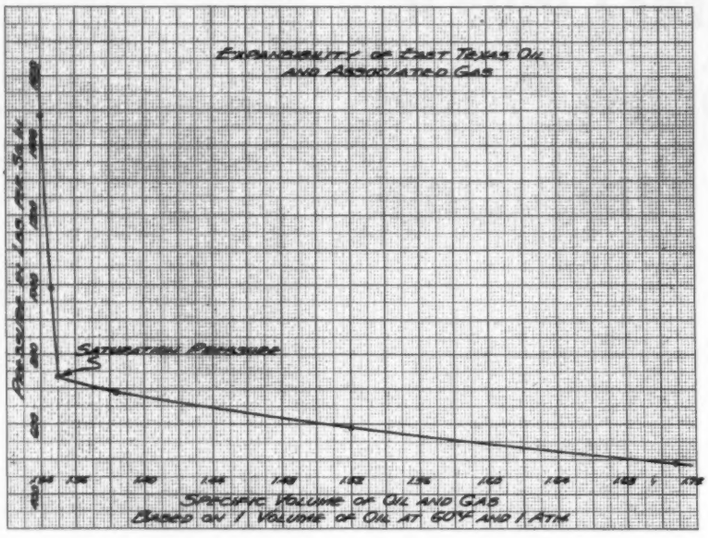

Expansibility of East Texas Oil and Associated Gas
Saturation Pressure
Specific Volume of Oil and Gas
Based on 1 Volume of Oil at 60° and 1 Atm

Fig. 3

However, if compaction of the sand should occur, its effect could not be confined to the oil producing area alone, but would exist throughout that portion of the Woodbine basin in which the fluid pressure has been reduced. Thus, its effect on the field would be exactly the same as if the water were more compressible. The reduction in pore space would not be concentrated in the oil saturated sand, but would be a general condition existing throughout the basin, and would therefore result in the replacement of substantially all of the oil removed by water.

The theory that water has replaced completely the oil that has been produced in East Texas offers the only tenable explanation for the behavior of this field. No other hypothesis explains the consistent increase in pressures that have been observed whenever the production rate has been reduced to a sufficient extent, and no other hypothesis can explain the maintenance of pressure at values higher than that at which free gas escapes from solution.

The question then arises as to how the force of this water drive can be used to best advantage in the production of oil. This can be accomplished by producing the field in such a manner that the water furnishes all of the energy necessary for oil production, while all of the gas is kept in solution in the oil. Gas in solution imparts to the oil physical properties that will aid materially in securing high recovery, while gas disseminated throughout the pore spaces of the sand serves to restrict unduly the flow of oil to the wells. If the water drive is to be used to best advantage, the oil must be withdrawn at a rate sufficiently low to permit the water to continue its complete replacement of oil in the pore spaces of the sand, so that the pressure in all parts of the field will remain above 730 pounds per square inch. To do this, the field should be produced in such a manner that the average pressure will never fall lower than about 1,000 pounds per square inch, which can be done by controlling the rate of production.

Howard Bennette, President W.P.R.A., National Refinery Co-ordinator, Dies

Howard Bennette, president of the Western Petroleum Refiners Association and national co-ordinator of the Planning and Coordination Committee, passed away Sunday afternoon at the Mayo Clinic in Rochester, Minn., after several weeks of treatments designed to build up a body worn from untiring work in the interests of the oil industry. For the past two years he has divided his time between Washington and Tulsa, as a member of the Planning and Coordination Committee and more recently as co-ordinator of refinery operations.

An attorney-at-law, a close student of refinery markets and enjoying the confidence of majors and independents alike, he was often called upon to settle differences of opinion among sales groups.

Mr. Bennette was born January 14, 1890, in Flatonia, a small town in southern Texas. His first business experience was gained when he became a partner with his father in a lumber yard in Conroe, Tex. Dissatisfied in that he took a job as brakeman on a railroad and then decided to study law at the University of Texas. He graduated from the law school in 1909 and practiced in Conroe until the entrance of the United States into the war, when he organized a company of guardsmen and was commissioned a captain. The unit did not see active service and soon after the armistice Mr. Bennette secured employment in the legal department of the Sun Oil Co. at Dallas, Tex.

He remained with the Sun company until 1920 when he was elected secretary-manager of the Texas-Louisiana-Arkansas division of the Mid-Continent Oil and Gas Association. Three years later he was chosen secretary of the Western Petroleum Refiners Association, with offices in Kansas City, and one of the first changes made under Mr. Bennette was to expand the activities of the association and to move the offices to Tulsa.

The work of the association grew and Mr. Bennette was named president several years ago, the office of secretary being turned over to A. V. Bourque who has been the active head since Mr. Bennette has had to give so much of his time to other work.

HOWARD BENNETTE

As head of the W.P.R.A., a director of the American Petroleum Institute, national co-ordinator and a natural born organizer, Mr. Bennette leaves a saddened group of close friends in the oil fraternity, a group of whom left Tulsa and other points to attend the funeral on Wednesday at Conroe, Tex.

Interstate Oil Compact Makes Rapid Progress

AUSTIN, Tex., Mar. 11.—The Texas bill to ratify the interstate oil compact has been given unanimously favorable approval of the House Committee on oil, gas and mining, and is on the calendar for consideration. Representative Albert K. Daniel, house author, plans parliamentary procedure this week for setting it for special order, for early action, in view of the possibility that other states might ratify and begin procedure before Texas had acted.

Governor Marland signed the Oklahoma bill ratifying the agreement, on March 6.

A proposal for ratification of the oil compact was presented to the Kansas legislature March 5 after Governor Alf Landon in a special message recommended the compact be ratified.

STRIKE INVOLVES TANKERS

LOS ANGELES, Calif., Mar. 12.—The seamen's strike, involving all employes on tank ships engaged in coastwise traffic, has temporarily paralyzed the movement of crude and refined oil between Pacific Coast ports. There are a few vessels en route from California to Seattle but the crews will leave the ships as soon as they dock. The strike was precipitated suddenly March 9. Seamen demand increased wages and preferential hiring of union members.

MAY SUCCEED BENNETTE

WASHINGTON, D. C., Mar. 12.—An election of officers of the Planning and Coordination Committee is scheduled this week. J. D. Collett will probably be continued as chairman. The post of vice chairman, now vacant, will be filled.

For the post of national co-ordinator left vacant by the death of Howard Bennette, John E. Shatfield, who has been acting as alternate for Mr. Bennette, is apparently in line for appointment.

Celluloid Is Used by Pipe Line to Combat Corrosion and Stress

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Mar. 11.—Celluloid is being used as a covering, or shield, to protect pipe lines from corrosion and soil stress, in experiments which have been conducted by a major pipe line company in Texas for a long enough time to make skeptic pipe line operators feel this type of shield is satisfactory. The experiments are being continued and considerable more time is necessary before a definite, favorable recommendation can be made as to how the coating stands up against various conditions encountered in different localities, but those in charge of the work of trying to find some covering which will protect the pipe against corrosion, and protect the bituminous coating applied directly to the pipe, from soil stress, seem more than satisfied with results so far obtained from the use of celluloid.

Solving Corrosion Problem

Details of the experiments with celluloid, coming at a time when other experiments are being conducted on the use of vulcanized rubber on pipe lines (see article in The Oil and Gas Journal of February 7, 1935) indicate pipe line companies are making every effort to solve the corrosion problem which costs the industry vast sums each year in replacement work.

Another pipe line company has been experimenting with another kind of coating. The first experiments with celluloid were made in the old Spindletop Field on the Gulf Coast. The covering now is being tried in other parts of the state, especially in North Texas. Where some of it has been in actual use for a year it has proven effective against the ravages of corrosion to the pipe around which it was wrapped. Other coatings in these spots were not effective, consequently this result leads to the belief that the shielding will probably prove the type of covering that will adhere to the pipe and prove of value in such spots.

Electrolysis, from stray electric currents, is not considered in this coating experiment, for the company has no lines in this area affected by electrolysis.

Comes in Layers

The proper name of the celluloid shield is "cellulose nitrate plastic" to distinguish it from acetate plastic. The trade name of the material is Pyralin. It is made by the DuPont Viscoloid Co., and comes in layers ten one-thousandths of an inch thick, although it can be obtained in any thickness up to twenty one-thousandths of an inch. It is shipped in rolls, the layers of which are 17 inches wide. Before being spiral wrapped on the pipe, however, the layers are cut in two for wrapping 6 and 8-inch pipe. It can also be obtained in 20-inch layers for covering larger pipe.

The cellulose nitrate plastic shielding is inflammable, therefore the company takes due precautions in storing it in a dark, well ventilated warehouse. It flashes at 525° F., but the company does not anticipate any danger from fire with reasonable precautions being taken in handling the material. Cellulose acetate plastic is noninflammable.

The tensile strength of the material is 8,000 pounds per square inch. It is brittle at —20° F. and softens at 220° F., beginning rapid decomposition at 325° F. When softened it will expand 5 per cent by volume and when hardening it will shrink 12 per cent of volume, which makes the covering adhere more closely to the pipe and joints around which it it wrapped. This shrinking when it hardens, does not crack or break the material due to the fact that while shrinking it pulls down on the thickness of the material, similar to a piece of stretched rubber.

It can be applied with an air spray gun in the liquid form, but this method of appliance to the pipe is not practical in view of the fact that only 9 per cent of solids goes into the making of the material.

Shield Can Be Softened

Atmospheric exposure will not cause the material to deteriorate, but the exposure to sunlight, which contains ultra-violet rays, will break it down, causing it to check, crack and break. As long as the covering is in the ground there is no danger of ruining the shield from such rays, but if a line is laid on top of the ground it is said the covering becomes useless within a comparatively short time.

A softening compound, composed of alcohol, ethyal acetate and water, is used in bringing the material to a soft and pliable state like chamois skin. It can be wrinkled and folded without breaking, when so treated, and the material is then placed over collars and other raised places and formed on the lines, wherever such places are encountered.

When covering collars on lines that are not welded, a strip of the material is softened and stretched over the collar, overlapping the cemented shield on the pipe line on each side of the collar. It is then sealed onto the pipe wrapping with a 1-inch wide strip on each side of the collar, making a perfectly smooth job such as shown in the accompanying picture. Note in this picture that the 1-inch strips cannot be seen on each side of the collar, and that the covering on the collar is not wrinkled or distorted in a single place. The laps on the spiral wraps on the pipe can be seen to the right and left of the collar, the wrapping lapping over three-quarters of an inch. The wrapping crews are exceptionally proficient in maintaining these three-quarters inch laps, losing no time in wrapping and lapping the covering.

Where spot welds are contacted with the covering, an X is cut in the wrapping directly above the spot. This allows the spot to push through so as not to disturb the wrapping angle on the pipe. A piece of the softened material is then taken and formed over the spot weld and cemented on the outside of the regular pipe covering, giving ample protection to the pipe and insuring a continuous even wrapping over it.

A Pyralin quick setting cement, made by the same company that manufactures the wrapping, is applied by a hand wielded brush to the edge of the roll of wrapping as it is spiralled around the pipe. This method of applying the cement was adopted after first applying the brush as the covering was laid on the line, which caused the cold slow drying paint on the line to mix with the cement and eliminate the latter's adhesiveness. The cold paint is applied to the pipe before the covering or shield is wrapped around it.

When the edge of the rolls were first painted as the wrapping was placed around the pipe the cement ran down between the layers in the roll. It then dried and caused the layers to stick to each other. This trouble, however, was soon overcome by daubing the end of the roll with cup grease, which prevented the cement from seeping between the layers.

The cement set too fast when first used, but this trouble was soon abated by the addition of more alcohol to it, which slowed down the drying process as desired.

The first method of wrapping used has

(Continued on Page 32)

Pipe and collar covered with celluloid spiral wrapping. Note smooth job of cementing overlaps at the spiral joints, and also smooth job over collar, which is covered separately with a piece that is cemented down and overlaps the pipe covering about 1½ inches on each side of the collar

Wrapping and painting edge of covering with cement at edge of roll. The cement is used in binding the laps together. It is placed on the celluloid at the roll to prevent the paint on the pipe from mixing with it and thereby destroying its adhesive qualities. Note paint on pipe. The paint is a cold slow-drying type that remains plastic under the celluloid covering at all times, never drying to hardness such as to cause cracking

Pipe raised and placed on racks ready for painting and covering with spiral lap wrapped celluloid covering

Two Per Cent Gain in Gasoline Consumption Reported by Bureau

By C. O. WILLSON

Oil operations in both the crude oil and refining ends in January were not on as favorable a basis as they were the latter part of 1934 and the same month last year according to the latest report of the bureau of mines covering the first month of the new year. The demand for crude oil showed a substantial increase over January, 1934, but could not keep pace with a production which was more than 200,000 bbls. daily greater.

The increased crude oil production was brought about by larger allowables approved by the Government with the additional fact that the actual production was 79,000 bbls. daily above the allowables. A little less than 1,000,000 bbls. of crude oil were added to storage and the data on refinery operations indicate that crude runs to stills were also stepped up to take care of the excess amount of crude oil available. This in turn brought about a situation in the supply and demand for refinery products which was not as favorable as it otherwise would have been. This relative situation in regard to total demand and supply of petroleum products continued on through February and no doubt has been a factor in the weakness apparent in several products over the past two weeks.

Gasoline Demand Less

In the gasoline end there was a small increase in exports of motor fuels in January over January, 1934, but the domestic demand was approximately 5 per cent less with a decrease in total demand of 3.7 per cent. The Government in its report explains that the decrease in domestic demand reflects a situation in which there was an abnormal gain in domestic shipments in January, 1934, over January, 1933. Taking a more normal relationship and the Government states the data for this January would show a 2 per cent gain over January last year. This in effect means that it will be necessary to wait for February and probably March reports to secure an accurate gauge on domestic gasoline requirements in comparison to 1934.

Kerosene

The gain in domestic demand for kerosene in January over the same month last year, was not as great as the latter months of 1934 over the same period in 1933 but exports showed a large gain of 22.1 per cent. January exports, however, were substantially less than in December. Refiners due to exceptionally high kerosene prices in relation to gasoline and other refinery products, stepped up their production and the output was 11.2 per cent greater than in January, 1934.

The recent weakness in the kerosene market in several refining areas would indicate that the kerosene production was boosted too rapidly and stocks have increased in these sections. Inventories were higher at the end of January than on the same date last year.

The demand for fuel oil and gas oil is the outstanding development of the month. There was a gain of 5.3 per cent in total demand for these products with limited supplies so that stocks were reduced 8,000,000 bbls. during the month. According to Government's comment the heaviest withdrawals were in gas oil and distillate with the largest reductions in inventories east of California.

Both the export and domestic demand for lubricating oils showed increases over January last year and stocks were reduced substantially. The only change in the wax situation which has been unfavorable for many months, is that refiners are reducing their output. The supplies are still far ahead of the export and domestic demand which in January was 20 per cent less than January, 1934.

INVESTIGATION IN MICHIGAN

The Michigan senate last week adopted a resolution introduced by Senator Joseph A. Baldwin proposing an investigation of the gasoline distributing industry of the State by a seven-member legislative committee.

The proposal was backed by independent gasoline dealers who charge their investment of $35,000,000 has been endangered by the competitive practices of the major oil companies represented in the State. An appropriation to finance the inquiry was raised from $3,500 to $5,000 before the resolution was sent to the House of Representatives.

Crude Oil and Refinery Situation Summarized—January, 1935-1934

Supply and Demand—Crude Oil (Bbls.)

January—	Total supply	Total demand	Excess Demand	Excess Pct.	Domestic production	Imports¶	Indicated domestic demand‡	Exports	Stocks refinable crude Jan. 31
1935	80,177,000	79,257,000	*920,000	*1.2	78,715,000	1,462,000	76,888,000	2,369,000	338,174,000
1934	74,573,000	75,236,000	663,000	.8	71,976,000	2,597,000	72,948,000	2,288,000	353,642,000
Increase, 1935	5,604,000	4,021,000			6,739,000	†1,135,000	3,940,000	81,000	15,468,000
Increase, 1935	7.5%	5.3%			9.3%	†43.7%	5.4%	3.5%	4.4%

Supply and Demand—Refinery Products—Motor Fuels (Bbls.)

January—	Total supply	Total demand	Excess Demand	Excess Pct.	Domestic production	Imports	Domestic demand	Exports	Stocks Jan. 31§
1935	36,236,000	30,187,000	*6,049,000	*20.0	36,236,000		28,062,000	2,125,000	57,796,000
1934	34,014,000	31,356,000	*2,658,000	*8.4	34,013,000		29,416,000	1,940,000	61,952,000
Increase, 1935	2,222,000	†1,169,000			2,223,000		†1,354,000	185,000	†4,156,000
Increase, 1935	6.5%	†3.7%			6.5%		†4.6%	9.5%	†6.7%
Kerosene									
1935	5,011,000	5,021,000	11,000	.2	5,011,000		4,299,000	722,000	6,388,000
1934	4,507,000	4,836,000	329,000	7.3	4,507,000		4,245,000	591,000	6,228,000
Increase, 1935	504,000	185,000			504,000		54,000	131,000	160,000
Increase, 1935	11.2%	3.8%			11.2%		1.2%	22.1%	2.5%
Gas Oil and Fuel Oil									
1935	28,265,000	36,298,000	8,033,000	28.4	27,193,000	1,072,000	33,751,000	2,547,000	104,174,000
1934	26,518,000	34,450,000	7,932,000	29.9	26,393,000	125,000	32,712,000	1,738,000	117,288,000
Increase, 1935	1,747,000	1,848,000			800,000	947,000	1,039,000	809,000	†13,114,000
Increase, 1935	6.6%	5.3%			3.0%	76.0%	3.2%	46.0%	†11.2%
Lubricating Oil									
1935	2,175,000	2,406,000	231,000	10.6	2,175,000		1,557,000	849,000	7,100,000
1934	2,198,000	2,208,000	10,000	.4	2,198,000		1,440,000	768,000	7,020,000
Increase, 1935	†23,000	198,000			†23,000		117,000	81,000	80,000
Increase, 1935	†1.0%	9.0%			†1.0%		8.1%	10.5%	1.1%
Petroleum Wax (Lbs.)									
1935	39,893,000	34,889,000	*5,004,000	*14.3	36,960,000	2,933,000	19,188,000	15,701,000	141,252,000
1934	53,845,000	44,020,000	*9,825,000	*22.3	46,480,000	7,365,000	25,049,000	18,971,000	78,934,000
Increase, 1935	13,952,000	9,131,000			†9,520,000	†4,432,000	†5,861,000	†3,270,000	62,318,000
Increase, 1935	26.0%	20.7%			†20.2%	†60.1%	†23.4%	†17.0%	78.0%

*Excess supply. †Decrease. Note—Total supply equals domestic production plus imports. Total demand equals domestic demand plus exports. Data on demand for refined products are based on refinery shipments. ‡Crude oil only. §Includes natural gasoline. ¶For domestic use.

Crude Oil Runs to Stills and Total All Oils (Bbls.)

January—	Total imports§	Total exports§	Total crude to stills	Nat. gasoline production	% Gasoline yield from crude oil‡	Total supply all oils*	Total demand all oils*	Stocks all oils Jan. 31
1935	2,563,000	8,780,000	75,456,000	3,286,000	46.8	86,232,000	85,001,000	565,379,000
1934	2,769,000	7,569,000	71,512,000	3,024,000	45.8	79,174,000	83,652,000	597,735,000
Increase, 1935	†206,000	1,211,000	3,944,000	262,000		7,058,000	1,349,000	†32,356,000
Increase, 1935	†7.4%	16.0%	5.5%	8.6%		8.8%	1.6%	†5.4%

*Total all oils includes oil, refined products, natural gasoline and benzol. †Decrease. ‡Includes natural gasoline blended at refineries. §Includes crude oil and refinery products. In case of gas oil and fuel oil and wax, imports include only products for domestic use. All data based on Bureau of Mines reports.

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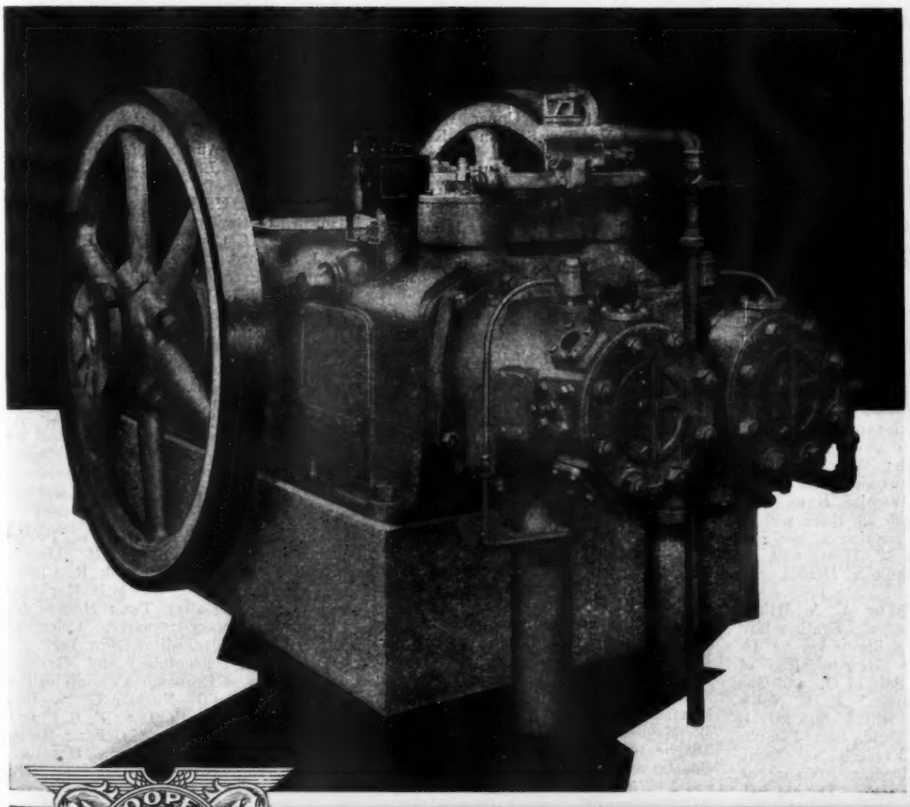

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Geologists, Geophysicists and Paleontologists Meet at Wichita

WILLIAM B. HEROY
President, A.A.P.G.

By L. G. E. BIGNELL
Petroleum Engineering Editor

Wichita, Kans., will be the headquarters for the twentieth annual meeting of the American Association of Petroleum Geologists March 21, 22 and 23, with the Kansas Geological Society acting as host. A very full program has been prepared and because of the general interest in Kansas at this time with a very active geophysical, leasing and drilling campaign under way, a record attendance is anticipated.

The technical sessions and headquarters will be in the Allis Hotel, and there will be preconvention meetings on Tuesday and Wednesday for the executive and other important committees. Beginning Thursday, March 21, there will be a full schedule of meetings from 9 a.m. each day until 4 p.m. with the evenings devoted to dinners and a banquet and dance. Saturday and Sunday have been set aside for field trips for those who care to make them. Dr. Raymond C. Moore, Kansas state geologist, will lead a field party on Monday, March 25, to study Permian and Pennsylvanian rocks in eastern Kansas.

Important Papers Assembled

The program committee has assembled a large number of important papers for the meeting. The members and guests of the A.A.P.G. are to be welcomed by Arch M. Booth, secretary, Wichita Chamber of Commerce, at the opening session on March 21. William B. Heroy, president of the association, will respond and act as chairman for the meeting.

The speakers for the first session are R. C. Moore, "Classification of Late Paleozoic Rocks of Mid-Continent Region"; L. C. Morgan, "Pre-Cambrian Rocks of Kansas"; Edward A. Koester, "Geology of Central Kansas Uplift"; and for the afternoon session with Edwin B. Hopkins, chairman, and Jerry B. Newby, vice chairman, Leo R. Fortier will discuss the "Voshell Trend, Kansas"; Virgil Kirbham, "Origin of Folds in Michigan Basin"; Fanny Carter Edson, "St. Peter Stratigraphy"; C. W. Tomlinson and Maynard P. White, "Structure of Arbuckle and Ouachita Mountains," and J. E. Adams, "Upper Permian Stratigraphy of West Texas Permian Basin."

DR. L. C. SNIDER
Editor, A.A.P.G.

Second Day's Sessions

The general technical program will continue on Friday with T. J. Galbraith, chairman, and Hugh D. Miser, vice chairman, and the first paper will be presented by Theodore A. Link, "Some Types of Foothills Structures in Alberta, Canada," followed by G. E. Condra and E. C. Reed with a paper on "Pennsylvanian and Permian of Hartville Uplift, Wyoming."

The late David White prepared a paper on "Metamorphism of Organic Sediments and the Derived Oils" prior to his death on February 7, 1935, which will be presented with the permission of the director of the U. S. Geological Survey.

Parker D. Trask follows with "The Problem of Petroleum Generation"; then Norman L. Thomas, "Contributions of Paleontology"; and John Trenchard and J. B. Whisenant discuss "The Government Wells Oil Field, Duval County, Texas" to close the morning session.

The afternoon session Friday will be presided over by W. F. Bowman, with Edgar Kraus, vice chairman, and will consist of a symposium on currently active fields during which period the following fields and districts will be discussed: "South Texas," Thornton Davis, Simms Oil Co., San Antonio, Tex.; "South Texas Salt Dome," Paul Weaver, Gulf Production Co., Houston, Tex.; "West Texas," Hal B. Bybee, San Angelo, Tex.; "North Central Texas," M. M. Garrett, Wichita Falls, Texas; "Southwestern Oklahoma," Frank Gouin, Duncan, Okln.; "Michigan," R. B. Newcombe, assistant state geologist of Michigan, Lansing, Mich; "North Central Oklahoma," open discussion, and "Kansas," by Roy Hall, Wichita, Kans.

On Saturday, March 23, there will be the annual business meeting at the general session. Harold W. Hoots will act as chairman and Frank A. Herald, vice chairman.

The first paper is by A. A. Baker, "Geologic Structure of Southeastern Utah," followed by a discussion by Irving Perrine on the "Responsibility of the Geologist in the Sale of Oil and Gas Securities to the Public." E. B. Noble and W. D. Klienpell will discuss "Geology of Edison Oil Field, San Joaquin Valley, California"; Frederick G. Clapp, "Safety of Water-Flooding Pressure at Bradford, Pennsylvania"; Donald C. Barton, "Variations and Migration of Crude Oil at Spindletop, Jefferson County, Texas"; and T. C. Hiestand, "Regional Investigations, Oklahoma and Kansas."

Edward Bloesch and R. T. Hazzard will preside at the Saturday afternoon session and F. M. Van Tuyl and Ben H. Parker will discuss "Extra-Territorial Hydrocarbons and Petroleum Genesis," followed by T. A. Hendricks, "Carbon Ratios in a Part of the Arkansas-Oklahoma Coal Field." Henry Rogatz, "Subsurface Geology of the Texas Panhandle," and the closing paper by Coleman D. Hunter, "Natural Gas from Devonian Shale, Eastern Kentucky."

The following papers will be presented by title only: M. H. Billings and J. H. Maucini, "Nocona Oil Field, Montague County, Texas"; Frederick G. Clapp, "Occurrence of Oil in Grabens"; C. H. Dane, W. G. Pierce and J. B. Reeside, Jr., "Reconnaissance Observations of Upper Cretaceous Rocks North of Arkansas River in Eastern Colorado"; James I. Daniels, "'Hunton' Limestone in Kansas"; D. Jerome Fisher, "Western Lawrence County Oil Field, Illinois" and "Origin of Petroleum with Particular Reference to the Deposits of the Western Lawrence County, Illinois, Field"; John L. Garlough and Garoin L. Taylor, "Hugeton Gas Field, Kansas"; Frank Gouin, "Some Notes on Economic Spacing of Oil Wells"; W. I. Ingham, "Wellington Oil Field, Colorado"; W. B. Lang, "Permian Formations of Pecos Valley of New Mexico and Texas"; George H. Norton, "Upper Wellington and Lower Red-Bed Section in Kansas"; O. C. Postley, "Notes on Natural Gas Developments and Possibilities East of Main Oil and Gas Fields of Appalachian Region"; Walter V. Searight, "Recent Refinements in Lance Stratigraphy of South Dakota"; E. I. Thompson, "Notes on Stratigraphy of Central and Western Oklahoma"; and Lon B. Turn, "Origin of Misener Sand and Relation of Its Local Characteristics to Oil and Gas Production."

Other Divisions

The petroleum geologists are divided into several separate groups and during this annual meeting the paleontologists and mineralogists will hold their first session Friday at 2 p.m. with Norman L. Thomas presiding. Following a business session R. W. Harris, Ira Higgins Cram, Charles Ryniker, Maynard P. White, Raymond C. Moore, Betty Kellet Nadeau, Norman D. Newell and O. Hoffman will discuss various paleontological subjects.

This will be followed by another session of the same group on Saturday morning when A. L. Lugn, A. C. Tester, E. C. Reed, Quentin D. Singlewald and Charles M. Reed, C. I. Alexander, Marion Setzer, M. M. Kornfeld, Dan J. Jones, Maxim K. Elias, J. Willis Stovall with W. S. Strain, J. B. Wharton and J. Teague Self will discuss "Tertiary and Quaternary Proboscideans of Oklahoma," and J. Willis Stovall will present a paper on "Tertiary Horses at Optima, Oklahoma," with the closing paper by Harold H. Hawkins.

The Geophysics Division meets Thursday at 1:45 p.m. with E. E. Rosaire presiding, with John W. Flude, Roy Hightower, G. H. Loving, G. H. Smith and Paul W. Klipsch discussing some phase of the use of explosives in seismograph work. E. E. Rosaire closes the meeting with a paper on "Strategy and Tactics in Geophysical Exploration for Petroleum."

On Friday morning Donald C. Barton opens the meeting and is followed in turn by Paul Weaver, E. W. K. Andrau, Maurice Ewing, A. P. Crary, J. W. Peoples, C. A. Heiland, Gerald H. Westby, J. Brian Eby and Robert P. Clark. The meeting will close with a symposium on "Geophysical Activity Throughout the United States and Some Foreign Countries," with G. H. Westby, Henry Salvatori, Joseph L. Adler, H. B. Peacock, John H. Wilson, E. G. Leonardon and O. C. Lester, Jr., contributing to the discussion.

Howard S. Bryan is president of the Kansas Geological Society and James I. Daniels, vice president, and W. R. Vickery, secretary-treasurer.

The Wichita committees are as follows:

General—E. C. Moncrief, chairman, F. L. Aurin, E. L. Bradley, John L. Garlough; program—W. A. Ver Wiebe, chairman, J. F. Kinkel, F. E. Wimbish, Jerry E. Upp, Anthony Folger; registration—Marvin Lee, chairman, R. A. Whortan, A. M. Meyer, E. Gail Carpenter, Roy H. Hall; entertainment—Howard S. Bryant, chairman, E. A. Wyman, Lee H. Cornell, James I. Daniels, C. J. Stafford, Walter W. Larsh; equipment—J. P. McKee, chairman, Glen C. Woolley, W. R. Vickery; publicity—L. R. Fortier, chairman, L. A. Crum, Edward A. Koester; trips—L. W. Kesler, chairman, William L. Ainsworth, Garvin L. Taylor; golf—Edwin N. Carlson, chairman, Edwin A. Dawson, L. I. Yeager; reception—E. P. Philbrick, chairman, L. C. Morgan, Phil K. Cochran, W. B. Sinclair.

Officers of Societies

The officers of the various national societies are:

The American Association of Petroleum Geologists—William B. Heroy, president, New York; Frank R. Clark, past president, Tulsa; Edwin B. Hopkins, vice president, Dallas, Tex.; Monroe G. Chaney, secretary-treasurer, Coleman, Tex.; L. C. Snider, editor, New York.

Division of Paleontology and Mineralogy (Society of Economic Paleontologists and Mineralogists)—Norman L. Thomas, president, Fort Worth, Tex.; F. B. Plummer, past president, Austin, Tex.; Merle C. Israelsky, vice president, Houston, Tex.; Gayle Scott, secretary-treasurer, Fort Worth, Tex.; Raymond C. Moore, editor, Lawrence, Kans.

Division of Geophysics (Society of Petroleum Geophysicists)—E. E. Rosaire, president, Houston, Tex.; Eugene McDermott, past president, Dallas, Tex.; Frank Goldstone, vice president, Houston, Tex.; Bela Hubbard, secretary-treasurer, Tulsa; B. B. Weatherby, editor, Tulsa.

Survey of Proven Reserves of Mineral Fuels in United States

By VALENTIN R. GARFIAS
Foreign Department, Henry L. Doherty & Co.*

A survey of the resources of mineral fuels, coal, petroleum and natural gas, presupposes a clear distinction between the known amount underground and the "proven reserves"; that portion which can be economically brought to the surface and made available for unitization.

It should be noted that only a fraction of the coal and petroleum in producing fields is or can be economically brought to the surface and that not all of this is economically utilized, also that although practically all the natural gas can be economically recovered and utilized, in actual practice, a large part of the total volume that reaches the mouth of the well is wantonly blown into the air and wasted. It is thus estimated that of the total amount of coal underground, about 40 per cent remains unrecovered or is otherwise wasted before it reaches the consumer, that only some 25 per cent of the petroleum in proven fields is actually brought to the surface and that even if, contrary to what is the case with coal and oil, practically the entire volume of natural gas can be economically utilized, in actual practice close to 25 per cent of the total produced is now absolutely wasted. And the dissipation of this gas, unwarranted as it is, not only diminishes the gas supply but diminishes also the proven reserves of petroleum from such fields, as the Panhandle of Texas, where petroleum and natural gas occur jointly and are produced simultaneously.

Factors Affecting Estimates

Many factors affect the estimates of the proven reserves of mineral fuels, such as the capacity and nature of the reservoir, its depth, the quality of the product, the efficiency of recovery, the price of the fuel and its by-products, etc., but superseding at times all of these, in the case of petroleum and natural gas deposits, is the effect of "subsoil ownership" on the rate and methods of exploitation of the deposits. As a result it is, or should be, a comparatively simple matter to eliminate waste and overproduction, and thereby increase the proven reserves of petroleum and natural gas, in Russia, Persia, Iraq and Venezuela where the subsoil rights are nationalized, or in any country in which there is or there can be quickly established an effective legal control of the underground deposits and the manner of their exploitation. It has been and it is now, on the other hand, almost an impossible undertaking to intelligently regulate the petroleum and natural gas production in the United States where the ownership of these products is based on the paramount right of the individual surface owner to "capture" within the boundaries of his property all the oil or gas under his land or migrating through it.

This unlimited "right to capture" results among other things in the blowing daily into the air of over 1,000,000,000 feet of natural gas in the Panhandle Field alone, a very high price for the State of Texas and the United States to pay for the sake of perpetuating these antiquated and destructive laws which places the individual above national rights in matters as these which affect national security through the wanton and irreparable destruction of these essential munitions of war.

*Before A.I.M.E., New York. Author's title: "A Survey of the Proven Reserves of Mineral Fuels in the United States."

Fuel Reserves

The accompanying table lists the total production and the estimates of proven reserves of coal, natural gas and petroleum to January, 1935. The table shows the proven coal reserves of the United States aggregate in round figures somewhat less than 3,500,000,000,000 tons, equivalent to some 4,800 years' supply at the present rate of production, reserves of natural gas at some 40,000,000,000,000 feet, which theoretically can take care of present demand for some 20 years, and proven petroleum reserves at 13,000,000,000 bbls., which represent close to 14 years' supply on the basis of present consumption. Obviously the present rate of production of these fuels cannot be maintained until the entire supply is exhausted and therefore any shortage will be experienced before that time, if consumption is to be met by present proven reserves.

Approximate as these figurts are, they nevertheless clearly show (1) that the United States is amply supplied with coal for future needs, (2) that natural gas is available for consumption for the comparatively short time of some 20 years, (3) that the proven petroleum reserves are inadequately small, more so than those of natural gas, (4) that the "law of capture" is the paramount handicap affecting economic oil and gas recovery, and to it can be ascribed the appalling waste of natural gas and the uneconomic recovery of petroleum and natural gas and (5) that no permanent remedy of these conditions can be expected until the "law of capture" is superseded or basically modified making possible the economic development and exploitation of oil and gas fields through the "unit plan" of operation or some other similar effective method.

PROVEN RESERVES OF MINERAL FUELS IN THE UNITED STATES

	Coal (Million net tons)	Natural gas (Trillion cu. ft.)	Petroleum (bbls.)
1934 production	390	*1.633	910,051,000
Total production to end of 1934	‡21,300	†30 310	16,600,419,000
Proven reserves at end of 1934	3,414,550	‡40.000	13,000,000,000

*Does not include some one-half trillion feet blown into the air and wasted in 1934.
†Does not include some 8 trillion feet blown into the air and wasted from beginning to date.
‡Includes some 10 trillion feet that will be wasted if production methods continue as at present and if the "law of capture" is not superseded or intelligently modified.
‡Does not include about 9 billion tons of coal left in the mines or otherwise wasted.

Oil as National and State Problem Is Argued by Wirt Franklin and E. O. Thompson

By L. E. BREDBERG

WICHITA FALLS, Tex., Mar. 11.—The North Texas Oil and Gas Association, composed principally of independent operators in the Wichita Falls district, held its fifth annual banquet in Wichita Falls, March 9. The number in attendance was estimated around 450, many operators from southern Oklahoma and districts in Texas being present.

Wirt Franklin, president of the Independent Petroleum Association of America, spoke on "Oil, the National Problem." He voiced his opinion that the interstate compact, drawn up in Dallas recently was "splendid," but it would not go far enough, and would not assure the legislation and regulations needed to permanently hold production to consumptive demand. He said he was a strong believer in State's rights, had never believed in federal control of the oil industry, but that he did believe permanent regulations were needed. He said the Thomas-Disney bill would create a fact-finding board to determine the crude oil demand and allocate it among the producing states on an equitable basis, and that there was nothing in that bill the industry had to be afraid of. He approved the Connally law, but said it was merely an emergency measure and its time is limited. A disinterested over-all allocator or umpire is needed to help regulate the industry. he said. "We have had a stable price for 18 months, the longest period since oil was discovered in 1859, due to federal aid being given the industry, and I only want to see sufficient aid by the federal Government given to the states to balance production with consumptive demand, and not full federal control of the industry."

J. S. Bridwell, independent operator of Wichita Falls, and past president of the North Texas Oil & Gas Association, introduced Mr. Franklin as an outstanding leader in the industry.

C. P. McGaha, of Fain & McGaha of Wichita Falls, retiring president of the association, presided over the first half of the meeting, turning the gavel over to L. H. Cullum, recently elected president.

Col. E. O. Thompson, chairman of the Texas Railroad Commission, spoke on "Oil, the State Problem." His opinion was that the interstate compact would be effective in regulating the industry. He said in part:

"I notice Wirt Franklin, one leader in the oil business, says what he wants is federal aid for the oil business. There is no question but what the needy should be aided, that is the rule of charity but let us look into this proposition of so-called federal aid for the oil business.

"All we need from the federal Government is fully covered in the Connally bill which forbids the shipment in interstate or foreign commerce of oil produced in excess of the amount as set by the State.

"Better times are undoubtedly ahead for the oil industry. This isn't just a good sounding sentence, to bolster up an uncertain hope. It is a statement of fact, backed by conditions that are plainly visible. Operators are taking out insurance against the dwindling supplies of the known oil fields. There are two phases to this look into the future. One is the increasing demand for crude oil. The other is the exhaustion or depletion of the producing fields. In the East Texas Field there is good engineering authority for believing that 22,000 wells will drill up the area inside the present known boundary. More than 16,000 of these wells have already been drilled. During 1934 only five new pools were developed in the United States that could be classed as important. Two of these were in Oklahoma, one in Kansas, one in Louisiana and one in New Mexico. The most important pool opened in the last two years is the Fitts Pool in southwestern Oklahoma, and it is estimated that 400 wells will drill up the area within the present known boundary. Fifty of these have been completed, 50 are drilling, leaving only 300 to drill. This gives you a picture of future oil resources, so far as we have proved them today. It is not a picture that makes one apprehensive about overproduction. It makes a background against which the oil industry stands out in promising relief.

"The industry is going ahead with vigorous preparations to take care of itself, and has been doing so for a good many months. As part of this preparation it drilled 18,197 producing oil wells in 1934, compared with only 12,312 in 1933. The East Texas Field was discovered in 1930. The Conroe Field in 1931. Since then the discoveries have been slow. The most important is one which can be drilled up, so far as we now know, with 400 wells. Oil in storage is at the lowest level in eight years. It is entirely conceivable that within a few years oil will be relatively scarce and high in price."

C. V. Terrell, another member of the Railroad Commission, made a few remarks, being followed by J. E. Allison, member of the West Central Texas Oil and Gas Association, who introduced four members of the Texas legislature who were present: Charles E. Tennyson and Judge C. M. McFarland of Wichita Falls, A. G. Walker of Vernon, a member of the oil and gas committee of the legislature, and Dave Harris of Archer City.

Roy B. Jones, of the Panhandle Refining Co., Wichita Falls, introduced H. N. Blakesly, safety director of the American Petroleum Institute, Dallas, who spoke on "Oil Field Safety Practices."

William McCraw, attorney general of Texas, was to have addressed the crowd, but urgent business prevented him from attending.

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Mid-Continent Refining Outlook Is Favorable as March Crude Runs Gain

By GEORGE WEBER

March crude runs to refineries in the Mid-Continent are scheduled to increase slightly over the total for February. While the total for all areas is estimated at practically the same figure, operations will vary in the separate districts. East Texas, after a gain in February is again on the decline so far as refining is concerned. Of the eight districts into which the Mid-Continent is divided, three will show increases which are normal for this season, one will continue operations at the same level as February, and four will cut runs to stills. The total amount of crude to be processed, 451,510 bbls. daily, will still remain well below the daily average of 465,680 bbls. in March, 1934, very closely duplicating operations of 1931, but with a much different distribution.

As provided by the Connally bill, the Federal Tender Board is going into the hot oil areas armed with the authority to specifically enforce the law with injunctions and criminal proceedings against any violators. As an added threat to hot oil operators, the proposed Texas State law controlling all truck shipments of gasoline out of East Texas will, if passed, cut hot oil transportation to a minimum. During February about 44 refineries operated in the field, some part time, but in March there will without doubt be a substantial decrease in the number running, as many are not tied into enough wells to maintain operations. Furthermore, it is predicted that some of the plants closed down will never reopen.

The past month has seen a successful development of the East Texas Refiners Marketing Corp. The 12 refineries which will be included in this organization produce approximately 55 per cent of the gasoline in East Texas. At a meeting in St. Louis recently, an understanding was reached among Mid-Continent refiners. Various refining companies in Oklahoma, Kansas and North Texas agreed to relieve the area of any distress gasoline produced from time to time. The 12 East Texas refiners included in the proposed corporation also have agreed to take care of distress gasoline produced in the East Texas area. They have obtained co-operation with certain refiners in the East and are thus furnished with an outlet for this gasoline outside the Mid-Continent. These two plans if successful will protect the rest of the Mid-Continent from East Texas gasoline and will at the same time provide for all such gasoline refined outside East Texas. This will be a strong factor in supporting the present price structure and in fostering better prices.

W. S. McCullough, T. H. McCullough and S. Myers, all of Kilgore, have formed the Broadmoor Sales Co., Inc., and have leased the Kilgore Refining Co. plant in that city from J. D. Wrather, the owner. The Kil-Tex Reclamation Co., Inc., has been formed by D. T. Newlin, D. G. Caldwell and F. Hull, who are building a small refinery in the field. The Century Refining Co. is installing a cracking unit at its Friars Switch plant.

The Humble Oil & Refining Co. report that their refinery at Neches will be closed down during March. The Southern Refining Co. of Reed Switch has gone out of business.

Oklahoma refiners generally will maintain schedules either at the same level as in February or will increase runs slightly. The total reduction in runs is due mainly to the shutting down of two plants for the month. The refinery of the Wilcox Oil & Refining Co. at Bristow and that of the Johnson Oil Refining Co. at Cleveland will remain closed throughout March. Operations have been resumed at the Garber plant of the Omar Refining Co. This 9,000-bbl. plant which has been down for a long period will average 2,200 bbls. during March.

The daily increase in the North Central Texas region was reflected generally in most of the refineries, while the decline estimated for West Texas and Panhandle area is representative of several plants in that district. The major companies operating refineries in Southwest Texas will add to runs during March. In this area the Pioneer Oil & Refining Co. of San Antonio reports that the additions recently made to the lubricating oil plant in their Somerset refinery have been completed and the unit is now operating with the added capacity. The Rado Refining & Producing Co. of McAllen are improving the plant by the addition of new fractionating equipment. These reports are indicative of a growing movement in building and modernizing in Mid-Continent refineries.

Mid-Continent Refinery Crude Runs

Average Daily Crude Runs (Barrels)

(Advance estimate compiled by The Oil and Gas Journal)

	1931	1932	1933	1934	1935
January	478,795	405,910	399,405	448,360	426,070
February	470,125	411,280	407,125	456,619	†448,810
March	449,634	401,155	423,445	465,680	451,510
April	497,391	419,391	441,000	458,220	.....
May	510,540	436,160	470,460	457,165	.....
June	567,915	440,765	479,987	459,908	.....
July	588,840	433,255	525,845	477,012	....
August	590,545	427,710	518,510	501,750	.....
September	588,105	430,430	526,749	499,830	.....
October	472,190	401,995	495,756	500,755	.....
November	480,440	408,180	481,335	500,445	.....
December	456,525	416,275	434,275	440,735	.....

Operations by Refinery Districts

	March dly. crude capacity	March dly. crude runs	Feb. dly. crude runs	March daily increase
Arkansas	38,550	18,550	17,850	700
East Texas	223,800	49,170	†51,380	*2,210
Kansas	180,950	116,010	112,310	3,700
North Central Texas	108,580	36,870	33,790	3,080
North Louisiana	55,450	22,180	†22,180	.....
Oklahoma	294,000	140,770	141,800	*1,030
Southwest Texas	26,300	15,510	†14,600	910
West Texas and Panhandle	125,820	52,450	54,900	*2,450
Total	1,053,450	451,510	†448,810	2,700

*Decrease. †Revised.

OKLAHOMA

Company and location—	Daily capacity	Av. daily runs Mar.	Av. daily runs Feb.
Anderson-Prichard Oil Corp., Cyril	6,000	5,150	4,150
Altitude Petroleum Corp. (J. H. Peacock Refining Co.), Oklahoma City	3,000	(*)	(*)
Associated Petroleum Corp., Allen	3,000	(*)	(*)
Barnsdall Oil Co., Barnsdall	6,000	3,500	3,500
Barnsdall Oil Co., Okmulgee	10,000	5,500	5,000
Bell Oil & Gas Co., Grandfield	4,500	2,100	2,100
Black Gold Refining Co., Oklahoma City	2,500	1,200	1,000
Century Petroleum Corp., Oklahoma City	2,500	(*)	(*)
Champlin Refining Co., Enid	16,000	6,000	6,000
Continental Oil Co., Ponca City	30,000	24,000	22,000
Crescent Refining Co., Holdenville	1,000	(*)	(*)
Cushing Refining & Gasoline Co., Blackwell	1,700	1,500	1,500
Cushing Refining & Gasoline Co., Cushing	4,500	2,500	2,500
Deep Rock Oil Corp., Cushing	10,000	9,000	9,000
Eason Oil Co., Enid	5,000	2,500	2,500
Empire Oil & Refining Co., Okmulgee	4,000	2,200	2,400
Empire Oil & Refining Co., Ponca City	12,000	8,710	7,800
Globe Oil & Refining Co., Blackwell	7,500	(*)	(*)
Government Refining Co., No. 1, Oklahoma City	1,000	(*)	(*)
Government Refining Co., No. 2, Oklahoma City	3,500	(*)	(*)
Government Refining Co., No. 3, Seminole	800	(*)	(*)
Hanger Refining Co., Oklahoma City	1,000	(*)	(*)
Johnson Oil Refining Co., Cleveland	6,000	(*)	4,500
Major Petroleum Products Co., Oklahoma City	2,000	450	450
Marathon Oil Co., Bristow	5,000	2,260	2,500
Mid-Continent Petroleum Corp., West Tulsa	40,000	18,000	18,000
Monarch Refining Co., Oklahoma City	1,000	300	300
Omar Refining Co., Garber	8,000	2,200	(*)
Paramount Refining Co., Oklahoma City	2,000	800	800
Peppers Gasoline Co., Oklahoma City	500	150	150
Phillips Petroleum Co., Okmulgee	6,000	4,200	5,400
Pure Oil Co., Muskogee	9,000	7,600	7,600
Rock Island Refining Co., Beckett	6,000	3,200	3,200
Sinclair Refining Co., Sand Springs	8,000	2,700	2,700
Sinclair Refining Co., West Tulsa	6,000	(*)	(*)
Sun Oil Co., Yale	5,000	2,000	2,000
Sunray Oil Co. (C. E. Wright, receiver), Allen	7,000	2,000	2,000
Texas Co., West Tulsa	15,000	12,000	12,000
Tide Water Oil Co., Drumright	15,000	7,000	7,000
Triangle Producing & Refining Co., Oklahoma City	1,000	450	450
Wilcox Oil & Gas Co., Bristow	5,000	(*)	2,000
Wirt Franklin Petroleum Corp., Ardmore	4,000	1,600	1,300
Yale Oil Corp., Yale	2,000	(*)	(*)
Total	294,000	140,770	141,800

*Shut down.

KANSAS

Company and location—	Daily capacity	Av. daily runs Mar.	Av. daily runs Feb.
Barnsdall Oil Co., Wichita	4,000	3,000	3,000
Derby Oil Co., Wichita	8,000	6,000	6,000
Dickey Refining Co., McPherson	5,000	2,000	2,000
Eldorado Refining Co., Eldorado	5,000	3,000	2,700
Falcon Refining Co., Inc., Great Bend	700	500	500
Globe Oil & Refining Co., McPherson	10,000	10,000	10,000
Golden Rule Refining Co., Wichita	1,500	(*)	(*)
Kanotex Refining Co., Arkansas City	12,000	5,000	4,000
Kansas Gas & Gasoline Co., Winfield	500	160	160
Kreuger Refining Co., Laton	150	50	50
National Refining Co., Coffeyville	6,500	4,000	4,000
Petroleum Products Co., Chanute	1,000	1,000	1,000
Phillips Petroleum Co., Kansas City	18,000	11,300	11,800
Security Petroleum Co., Chase	3,100	(*)	(*)
Shell Petroleum Corp., Arkansas City	20,000	17,000	15,000
Sinclair Refining Co., Coffeyville	12,000	9,000	8,500
Sinclair Refining Co., Argentine	9,500	7,000	7,000
Skelly Oil Co., Eldorado	23,000	16,000	15,000
Socony-Vacuum Oil Co., Inc., Augusta	16,000	14,500	15,000
Standard Oil Co. (Indiana), Neodesha	20,000	4,500	4,500
United Oil & Refining Co., Hutchinson	1,500	(*)	(*)
Vickers Petroleum Co., Potwin	3,500	2,000	2,100
Total	180,950	116,010	112,310

*Shut down.

WEST TEXAS AND PANHANDLE

Company and location—	Daily capacity	Av. daily runs Mar.	Av. daily runs Feb.
Active Oil Co., Arno	1,500	(*)	(*)
Aero Refining Co., Pecos	220	100	100
Coltex Refining Co., Colorado	12,500	6,250	6,230
Concho Refining Co., San Angelo	250	100	100
Cosden Oil Co., Big Spring	12,500	5,500	6,000
Danciger Refineries, Inc., Pampa	6,500	5,000	4,800
Gibson Oil Corp., Magic City	250	(*)	150
Howard County Refining Co., Big Spring	1,500	300	300
Mertzon Refining Co., Mertzon	100	50	20
McNutt Refining Co., El Paso	2,000	600	600
Panhandle Refining Co., Kings Mill	2,000	1,400	1,400
Paramount Refining Co., San Angelo	2,000	(*)	(*)
Pasotex Refining Co., El Paso	14,000	6,000	6,000
Phillips Petroleum Co., Borger	50,000	19,350	21,400
Shamrock Oil & Gas Co., Sunray	2,000	1,500	1,500
Shamrock Oil & Gas Co., Meldavis	1,500	1,200	1,200
Sinclair Refining Co., El Paso	2,500	600	600
Texas Co., El Paso	2,000	900	900
Texas Co., Amarillo	4,800	3,000	3,000
West Texas Refining Co., Pecos City	6,000	(*)	(*)
Wickett Petroleum Co., Wickett	2,500	600	600
Total	125,820	52,450	54,900

*Shut down.

(Continued on Next Page)

NORTH CENTRAL TEXAS

Company and location—	Daily capacity	Av. daily runs Mar.	Av. daily runs Feb.
All State Refining Co., Thrall	2,300	(*)	(*)
Archer Refining Co., Megargel	1,000	200	200
Atlantic, Pacific & Gulf Refining Co., Wichita Falls	5,000	(*)	100
Baird Refining Co., Baird	1,400	800	800
Canyon Oil & Gas Co., Inc., The, Cisco	500	(*)	(*)
Continental Oil Co., Wichita Falls	6,000	4,000	3,800
Empire Oil & Refining Co., Gainesville	5,000	(*)	(*)
Exchange Petroleum Corp., Albany	500	220	200
Falls Refining Co., Wichita Falls	2,000	300	300
Gratex Refining & Fuel Co., Graham	500	170	200
Gulf Refining Co., Fort Worth	10,000	3,500	3,600
Gulf Refining Co., Sweetwater	5,000	3,700	2,500
Haskell Oil Refining Co., Breckenridge	200	(*)	(*)
Hightower Oil & Refining Corp., Brownwood	750	300	300
Hill Refining Co., Ballinger	80	50	50
Jacksboro Refining Co., Jacksboro	50	50	50
LaSalle Petroleum Co., Burkburnett	3,500	500	280
Magnolia Petroleum Co., Fort Worth, No. 1	12,000	5,850	4,370
Magnolia Petroleum Co., Fort Worth, No. 2	6,000	(*)	(*)
Marathon Oil Co., Fort Worth	5,000	3,230	3,000
Moutray Refining Co., Hawley	600	200	235
Meunster Refining Co., Meunster	300	150	150
New Deal Refining Co., Abilene	300	(*)	(*)
Nolting Refining Co., Sweetwater	1,000	(*)	(*)
Norgold Refining Co., West Olney	400	200	210
Olney Oil & Refining Co., North Olney	3,000	1,800	1,500
Omega Refining Co., Brownwood	200	(*)	(*)
Phoenix Refining Co., Hawley	800	500	300
Panhandle Refining Co., Wichita Falls	5,000	1,800	1,800
Paragon Refining Co., Leuders	400	150	125
Pentex Refining Co., Echo	400	(*)	(*)
Pilot Point Refining Co., Pilot Point	500	100	100
Sinclair Refining Co., Fort Worth	5,000	2,500	2,500
Southtex Refining Co., Trent	250	(*)	(*)
Southland Refining Co., Olney	1,000	(*)	(*)
Starlight Refining Co., Inc., Ballinger	500	300	300
Star Refining & Producing Co., Fort Worth	1,200	290	500
Superior Refining Co., Tiffin	800	(*)	(*)
Taylor Refining Co., Taylor	6,000	800	800
Taxman Refining Co., Wichita Falls	3,500	(*)	(*)
Texas Pacific Coal & Oil Co., Fort Worth	3,000	2,200	2,500
Texas Pacific Coal & Oil Co., Caddo	1,000	160	160
Tucker Refining Co., Wichita Falls	200	150	130
Waggoner Refining Co., Electra	6,000	2,500	2,500
Watt Refining Co., Brownwood	200	200	200
Total	103,580	36,870	33,790

*Shut down.

EAST TEXAS

Company and location—	Daily capacity	Av. daily runs Mar.	Av. daily runs Feb.
Acme Refining Co., Gladewater	700	700	720
Adams Refining Co., Big Sandy	1,000	(*)	(*)
Alton Refining Co., Gladewater	1,500	(*)	(*)
Arrow Refining & Producing Co., Overton	5,000	400	860
Artex Refining Co., No. 1, Arp	1,600	(*)	(*)
Artex Refining Co., No. 2, Camps Switch	3,700	(*)	(*)
Atlantic & Gulf Refining Co., Kilgore	2,000	(*)	(*)
Atlas Refining Co., Gladewater	100	(*)	(*)
Aviation Refining Co., Kilgore	200	(*)	(*)
Bartlett Refining Co., Kilgore	200	(*)	(*)
Beacon Oil & Refining Co., Henderson	4,500	140	200
Blue Diamond Refining Co., Gladewater	1,000	850	800
Bonetz Refining Co., Joinerville	500	100	200
C. L. & W. Refiners Corp., Gladewater	1,300	600	750
Century Refining Co., Corsicana	2,300	(*)	(*)
Chief Refining Co., Gladewater	1,500	(*)	700
Condor Refining Co., Kilgore	1,000	400	(*)
Consolidated Refining Co., Gladewater	1,500	1,000	1,140
Culver Refining Co., Gladewater	3,700	800	940
Danciger Refineries, Inc., Longview	10,000	(*)	(*)
East Texas Refining Co., No. 2, Longview	10,000	3,500	3,600
Friar Topping & Refining Co., Friars Switch	1,500	(*)	(*)
Gilliland Refining Co., Gladewater	3,500	2,000	2,200
Gilmer Refining Co., Gladewater	500	(*)	(*)
Godlin Refining Co., Gladewater	850	(*)	(*)
Goldman Refining Co., Gladewater	1,100	100	60
Goodson, Gentry, Carles Refining Co., Gladewater	1,000	(*)	50
Hub Oil Refining Co., Reeds Switch	100	(*)	(*)
Humble Oil & Refining Co., Neches	5,000	(*)	450
Hunter & Knox Refining Co., Reeds Switch	100	(*)	(*)
Ideal Refining Co., No. 3, Gladewater	750	(*)	(*)
Illinois Refining Co., Kilgore	1,000	100	(*)
Jackson Refining Co., Gladewater	1,500	(*)	(*)
Johnson Refining Co., No. 1, Kilgore	1,400	(*)	(*)
Kent Refining Co., Angus	4,000	(*)	(*)
Kilgore Reclamation Co., Kilgore	2,000	(*)	(*)
Kilgore Refining Co., Kilgore	3,000	(*)	(*)
Kiltex Refining Co., Kilgore	500	(*)	(*)
Lake Refining Co., Gladewater	2,000	900	1,000
Lapren Refining Co., Kilgore	1,500	600	640
Linsie Refining Co., Gladewater	2,500	900	900
London Topping & Refining Co., Overton	400	(*)	(*)
Lone Star Refining Co., Gladewater	2,700	1,500	1,600
Magnolia Petroleum Co., Corsicana	5,000	3,440	3,000
Master Petroleum Co., Waco	1,000	400	(*)
McKain Refining Co., Gladewater	800	500	450
McMurray Refining Co., Arp	4,000	500	860
Minerva Refining Co., Minerva	2,000	(*)	(*)
Model Oil & Refining Co., Reeds Switch	1,400	(*)	(*)
Ocean Refining Co., Kilgore	3,000	(*)	800
Oil Refineries, Inc., Overton	4,000	2,190	2,500
Outdoor Refining Co., Kilgore	900	(*)	(*)
Overton Refining Co., Overton	3,000	200	(*)
Ozoso Refining Co., Friars Switch	10,000	500	(*)
Panama Refining Co., Kilgore	3,500	(*)	(*)
Pentex Refining Co., Gladewater	500	(*)	(*)
Phoenix Refining Co., Dallas	5,000	(*)	(*)
Pope Refining Co., Gladewater	1,700	(*)	(*)
Producers Oil Refining Co., Reeds Switch	2,700	(*)	(*)
Rabbit Creek Refining Co., Kilgore	200	(*)	(*)
Recia Refining Co., Turnertown	200	100	(*)
Rig Topping & Refining Co., Kilgore	200	(*)	(*)
Roco Refining Co., Kilgore	2,400	(*)	(*)
Rusk Refining Co., Overton	3,000	(*)	(*)
Shoreline Refining Co., Kilgore	2,700	(*)	(*)
Simms Oil Co., West Dallas	4,000	(*)	(*)
Sinclair Refining Co., Camps Switch	5,000	2,000	1,500
Southern Oil Refining Co., Reeds Switch	1,800	(*)	(*)
Southport Refining Co., Kilgore	3,300	2,000	2,000
Staley, J. L., Refinery, Friars Switch	6,000	(*)	(*)
Supreme Refining Co., Gladewater	1,000	800	870
Texas Co., Dallas	16,000	11,000	11,000
Texas Oil Products Co., Gladewater	2,000	1,400	1,700
Texas Refining Co., No. 1, Kilgore	1,200	(*)	(*)
Texas Refining Co., No. 2, Gladewater	2,300	(*)	(*)
Texas State Refining Co., No. 1, Kilgore	1,000	(*)	150
Triangle Refining Co., Kilgore	2,500	100	90
Trio Refining Corp., Arp	1,500	900	900
Tucon Refining Co., Gladewater	900	50	(*)
Twintex Refining Co., Kilgore	200	(*)	(*)
Tyler, Texas, Producing & Refining Co., Tyler	15,000	3,000	3,500
Tyreco Refining Co., No. 1, Arp	2,500	1,500	1,900
Tyreco Refining Co., No. 2, Overton	3,000	2,000	2,000
Union Refining Co., Kilgore	3,000	2,000	1,350
Upshur Refining Co., Gladewater	1,000	(*)	(*)
Utah Refining Co., Kilgore	2,500	(*)	(*)
Wabash Refining Co., Gladewater	1,000	(*)	(*)
Walrip & Stevens Refining Co., Omega	1,000	(*)	(*)
Wolfe Refining Co., Kilgore	1,000	(*)	(*)
Total	223,800	49,170	51,380

*Shut down.

SOUTHWEST TEXAS

Company and location—	Daily capacity	Av. daily runs Mar.	Av. daily runs Feb.
Amsco Refining Co., Mirando City	2,000	1,230	950
Bee Oil & Refining Co., Pettus	1,000	500	500
Capital Refining Co., Luling	2,500	(*)	(*)
Chapa Refining Co., Laredo	100	50	50
Citizens Refining Co., Luling	200	50	50
Humble Oil & Refining Co., San Antonio	5,000	2,850	2,400
Magnolia Petroleum Co., Luling	7,000	5,180	5,000
Pettus Refining Co., Pettus	1,000	500	500
Phoenix Refining Co., San Antonio	500	500	400
Pioneer Oil & Refining Co., Somerset	2,000	1,200	1,200
Rado Refining & Producing Co., McAllen	500	200	300
Texas Co., San Antonio	3,000	3,000	3,000
Texas Petroleum Products Co., Somerset	1,500	250	250
Total	26,300	15,510	14,600

*Shut down.

ARKANSAS

Company and location—	Daily capacity	Av. daily runs Mar.	Av. daily runs Feb.
Berry Asphalt Co., Waterloo	2,000	800	1,100
Henry H. Cross Co., Smackover	6,000	2,500	3,000
Lion Oil Refining Co., El Dorado	12,000	8,000	6,500
Macmillan Petroleum Products Co., Norphlet	2,300	2,000	2,000
Ouachita Valley Refining Co., El Dorado	2,500	(*)	(*)
Root Refining Co., El Dorado	10,000	5,000	5,000
Simms Oil Co., Smackover	3,000	(*)	(*)
Stephens Refining Co., Stephens	750	250	250
Total	38,550	18,550	17,850

*Shut down.

NORTH LOUISIANA

Company and location—	Daily capacity	Av. daily runs Mar.	Av. daily runs Feb.
Acme Refining Corp., Monroe	100	50	50
Bayou State Oil Corp., Hosston	750	180	180
Griswold Refining Co., Shreveport	1,000	1,000	1,000
Louisiana Oil Refining Co., Shreveport, Bossier	30,000	18,000	18,000
Pelican Refining Co., Converse	100	50	50
Shoreline Oil Co., Lewis	1,000	900	900
Spartan Refining Co., Shreveport	12,000	(*)	(*)
Stanolind Oil & Gas Co., Vivian	3,500	2,000	2,000
Texas Co., Shreveport	7,000	(*)	(*)
Total	55,450	22,180	22,180

*Shut down.

Metallurgical Division Important in Refining

By H. M. WILTEN

Engineering Department, Port Arthur Works, The Texas Co.*

Imagine yourself in the Texas Co.'s largest refinery at Port Aruthr, Tex., walking under a length of steel tubing 6 inches in diameter, through which rushes gasoline vapor at 1,000° F., under 400 pounds pressure. Think what would happen if that tube should burst. It doesn't, thanks to metallurgy. There are lines at Port Arthur today that operate at 1,050 degrees. With this in mind, even the layman will appreciate the importance of the work carried on by the metallurgical division of the engineering department at Port Arthur.

The functions of this division are: First, to inspect incoming metal materials in order to check their quality with respect to certain specifications, such as analysis, strength, uniformity and absence of defects; second, to study the comparative economical utilization of metals with respect to losses by corrosion, erosion, and other external factors; third, to study the failures of metals in service in order to determine their cause and subsequent elimination; and fourth, to study the properties and suitability of metals with respect to safety.

In order to carry on this work, the metallurgical laboratory is fully equipped with apparatus to examine metals both chemically and physically. Not only can the daily routine metallurgical work be carried on, but also considerable research can be undertaken. While the effect of stresses on metals at ordinary temperatures has been studied for nearly 200 years, the behavior of metals at high temperatures has occupied the attention of engineers for only a short period of time.

In the so-called "cracking process" for the manufacture of gasoline, for example, it soon became apparent that ordinary steel, such as was formerly used in refineries, was inadequate to meet the tremendous temperatures and pressures of these giant distillation units. Another danger was that of corrosion, caused by the sulphur content of the untreated oils.

The Texas Co.'s metallurgical division pioneered in studying and developing the most suitable alloys for this purposes. As a result of corrosion investigations made under conditions simulating those encountered in actual service, it was found that the addition of chromium increased the resistance of steel to corrosion. Other studies were made, and a new steel, known as 4-6 per cent chromium steel, which became a standard for use in refinery heater tubes, was developed. Today steel of this analysis is being used not only in this country, but also in German and Far Eastern refineries.

At the high temperatures encountered in a modern refinery, the "thermal stability," or ability of the metal to resist physical changes as a result of high temperatures, became an important factor. It was found that some properties of steel deteriorate in time when exposed to heat. This deterioration in 4-6 per cent chromium steel has been extensively studied, and the addition of suitable alloys has further improved it.

In addition, several service problems had to be solved. For example, the welding properties of this new steel were such that for its proper use it was necessary to "heat treat" or soften the welds. After some experimentation, the Port Arthur metallurgists devised an apparatus and a method of heat treating welded structures of this kind in the field.

During this investigation, the metallurgists encountered problems of such a nature that they might well be considered in the realm of pure physics. In order to stimulate research in this field, the Port Arthur metallurgical division has published some experimental data on the behavior of steels at high temperatures and has advanced a theory concerning the nature of changes in some properties of steels when exposed to high temperatures for a long period of time.

Thus, in one of the smallest departments of the Texas Co., the same progressive spirit prevails which made this company one of the leaders in the petroleum industry.

*From The Texaco Star.

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Grasping at the Shadow

Opinion at Washington seems to have concluded that the National Recovery Act, in some form, will be continued for another two years. Its scope however, may be greatly restricted, one report predicting that 80 per cent of the codes involving less important industries and businesses may be dropped, and Mr. Richberg's remarks about excluding service codes and those practically only intrastate are interpreted as pointing that way.

At the same time specific reference to necessity for continuing supervision of the mineral industries is taken to mean that the petroleum code, in some form, will be extended.

It is thought that the provisions covering the production of crude, taken with an interstate agreement and the Connally law, can be worked out satisfactorily.

The sections covering the allocation of refinery production have been less fruitful. The machinery seemed adequate and fairly representative but it was handicapped by lack of conscious individual responsibility for taking a broad view of the situation.

It would seem a simple matter to calculate actual requirements based on approximately known demand which was supposed to be the foundation for the allocation but when this was complicated by adding imaginary requirements based only on hoped for new business there could be only one result.

Without a marked increase in demand little new business could be expected except by taking business from some competitor who would consequently be left with excess products to threaten the market.

Multiply this overstatement of requirements in hope of unrealized gains by several individuals and the whole picture is soon lopsided.

It is now being suggested that provision be made for penalizing in following months those who pad their requirements by the amount of their excess but what is really needed is a more realistic understanding of the whole situation and its effects upon the individual in the long run.

It must not be forgotten that overestimating requirements is not the only weak spot. There are also those who never offer any estimate of requirements or file any reports.

The allocation system, based on co-operation within the industry, has no effective method of dealing with that sort of recalcitrance. In some cases effective enforcement of crude production regulations may provide a corrective but in others persistence on a lone course is difficult to overcome. The slow and costly education of experience may eventually succeed.

It is being demonstrated that there is a limit to the burden of overproduction which the refining industry as a whole can carry.

If estimated requirements were kept down to actual needs for one month the effect on the market would be plainly visible to everybody in the business.

What the refiner needs is not new business at distress prices but fair prices for the business he already has. He can get it when he quits dropping the bone to grasp at the shadow.

The Market Demand Law

Anxiety expressed lest Texas fail to reenact the market demand law when it expires by limitation in September, throwing regulation in East Texas back into the chaotic condition under mere physical waste restriction, may be mitigated by one explanation offered in Texas.

This is that Governor Allred's opposition to inclusion of a market demand clause in the interstate agreement was due solely to his determination not to grant such power to a Federal authority or to a board representing the various states.

It is cited that Railroad Commissioners Thompson and Terrell both urged Governor Sterling to call the special session of the legislature which enacted the original market demand law and that the law has never been a campaign issue in Texas.

Moreover, Governor Allred has shown his understanding of the necessity for regulation of production by his acceptance of the interstate agreement and it is concluded he is unlikely to do anything to upset efforts for stabilization within the State.

There is the further consideration now that, even if the market demand law were not reenacted, the Railroad Commission would continue to be governed by the physical waste factor which would be sufficient to prevent any prolonged runaway production.

Cause and Effect

Crude oil production in January was almost 79,000 barrels daily above the allowable which had been increased 153,300 barrels daily in mid-December. Result: Crude oil stocks were increased nearly 2,000,000 barrels.

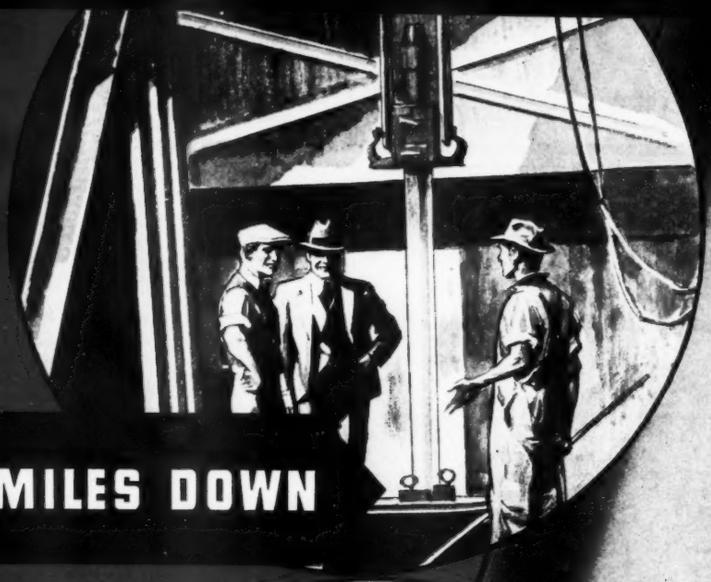
Although the actual consumption of gasoline in January was probably, according to the United States Bureau of Mines, about 2 per cent higher than it was in January, 1934, stocks of finished gasoline increased 5,735,000 barrels and stocks of unfinished gasoline 325,000 barrels, a total gain in January of 6,060,000 barrels, or 890,000 barrels in excess of the total recommended in the allocations.

According to the Bureau of Labor Statistics the price index for petroleum products for January was 48.8, compared with 49.8 in December and 51.1 in January a year ago.

The Increase in Drilling

Commenting upon indications that thus far the first quarter of the current year earnings of the integrated oil companies east of California will be somewhat lower than those for the corresponding period of 1934 the Wall Street Journal attributes it to "the pickup in drilling which entails larger expenses, although a good deal depends upon whether a particular company capitalizes such expenditures, writing them off over a period of years in gradual amortization, or charges them off directly." Under proration, it is added, it takes a much longer time for new found oil to contribute to earnings.

Nevertheless the situation betokens a much healthier condition in the industry in marked contrast to the stagnation during the years when overproduction checked activities in the field. So far the pickup in drilling has failed to disclose any menacing pool and has been justified by the necessity of assuring future reserves without which the earnings of the industry could not be continued.



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NEWS FROM FOREIGN LANDS

PERSIA

Crude oil production in Persia totaled 630,102 tons in January according to preliminary reports. This is a gain of 9 per cent over the 578,508-bbl. total for December and 6 per cent greater than the 594,970-bbl. production in January, 1933.

FRANCE

Recent reports indicate that crude oil runs to stills at refineries in France have been increased to approximately 100,000 bbls. daily. The increasing supply of crude oil from Iraq has enabled certain refiners to increase their operations. According to reports the present crude oil deliveries of the Iraq pipe line are in excess of 50,000 bbls. daily. Some of this crude is going to plants in Great Britain and other countries but it is estimated that the tanker deliveries to French refineries is now in excess of 40,000 bbls. daily. Some of this crude oil is going to storage but the bulk of it is now being refined into finished products. It is said that when the Iraq line is operating at capacity within the next few months the French refineries will be expected to refine a minimum of 60,000 bbls. daily of the crude oil.

Several construction programs which have been under way for several months at French refineries to enable the French plants to refine Iraq crude oil efficiently have either been completed or will be within the next few weeks. Due to the sulphur content of the Iraq crude it has been necessary for all refiners to install special corrosion resisting equipment in their crude distillation and cracking equipment. New treating facilities for the light products have also been added to some plants. Due to the low octane value of the straight naphtha cuts from the Iraq crude oil, several companies have found it necessary to increase their cracking equipment including the installation of reforming units to handle the heavy naphtha fractions.

Most of the 15 refineries in France will continue to refine some crudes other than Iraq but the quantities required from the United States, South America, Persia, Rumania and Russia have already decreased. The Iraq crude oil is not suitable for the manufacture of most lubricating oils and companies with complete lubricating plants will find it necessary to import crude oils or topped crudes from other countries.

The latest plant to be completed in France is that of Cie Francaise de Raffinage, refining subsidiary of Compagnie Francaise des Petroles, one of the four principal owners of the Iraq Petroleum Co., Ltd. The new plant is located at Martigues on the Mediterranean and has a crude oil capacity of 10,000 to 12,000 bbls. daily. The plant also has facilities for cracking gas oil and reforming naphtha, sufficient to take care of the present crude oil capacity. The refinery is to operate exclusively on Iraq crude oil.

According to final reports of the government, French refiners in 1934 imported 4,321,869 tons of crude oil, or a daily average of 83,000 bbls. This is a measure of actual crude runs to stills during the year for the French crude oil production is less than 1,500 bbls. daily. Indicative of the rapid growth of petroleum refining in France and average crude runs to stills in 1933 were 52,500 bbls. daily; in 1932, 17,000 bbls. daily, and in 1931, 10,000 bbls. daily.

With the increased imports of crude oil for domestic refining, imports of finished products have of course decreased. The total imports of crude oil and refined products in 1934 totaled 6,200,000 tons. These imports amounting to 120,000 bbls. daily indicate the total market for petroleum products in France. The following table gives the imports for 1934 and 1933 (data in tons):

Products—	1934	1933
Crude oil	4,321,800	2,793,600
Gasoline	1,051,800	1,714,800
Kerosene	38,300	92,300
Lubricating oil	154,600	197,900
Gas oil	252,100	380,200
Fuel oil	263,900	626,200
Road oil	52,300	78,900

U. S. S. R.

Detailed information covering January operations in the U.S.S.R. shows that crude oil production in that month was 8.7 per cent less than in December, 1934, and practically the same as in January, 1934. The daily average production was 430,900 bbls. in January; 472,200 bbls. in December, 1934, and 432,000 bbls. in January, 1934.

The crude oil production in January was 86.9 per cent of the government plan for that month, indicating that the expected production was around 500,000 bbls. daily. The most outstanding development of the month in U.S.S.R. operations was the decline in drilling. The month's drilling was 20,000 meters less than in December and less than 80 per cent of the total drilling in January, 1934. The government's plan for January provided for drilling in excess of 100,000 meters. All the operating trusts ran behind the plan. As was the case last year the government's drilling program in wildcat areas is far behind its plan. This includes extension drilling adjacent to proven fields and wildcat tests in new areas where geological investigations have indicated new pools.

Most of the increased production of Russia in 1934 over 1933 and 1932 came from the increased output of proven pools. Additional wells were drilled and production was obtained in some cases from new sands by deepening old wells. It is now said that the discovery of new fields and their rapid development is necessary if the country is to maintain its 1934 production in 1935.

Crude runs to stills are running about 67,000 bbls. daily less than the total crude oil production. The production of gasoline and other products in January was practically the same as in January, 1934.

Despite the increased crude oil production last year, U.S.S.R. was a less important factor in European oil markets than any time in several years. Complete data for 1934 are not available but official figures for the first 10 months show that exports of crude oil and refinery products the first 10 months of 1934 totaled 3,359,648 bbls., a decline of 16 per cent when compared with the same period in 1933.

The only major country whose imports of Russian products increased in 1934 was Spain. A new contract with the Spanish monopoly was effective in 1934 and imports from Russia the first 10 months totaled 420,004 tons, a gain of 42.4 per cent over the same period in 1933. Other comparisons of exports by major countries are as follows (data in tons):

FIRST 10 MONTHS	1934	1933
France	628,000	633,700
Italy	536,400	901,200
Spain	420,000	294,900
British Empire	370,400	455,700
Germany	360,600	388,600
Sweden	173,800	195,900

PETROLEUM IN THE U.S.S.R.

Preliminary Figures for January, 1935, and Revised Figures for December, 1934

Production of Crude Oil (tons)

	January 1935	% of plan	December 1934	January 1934	1935 % of 1934
Azneft	1,543,400	87.3	1,715,200	1,492,600	103.4
Grozneft	214,400	86.5	211,800	326,800	65.6
Maineft	99,200	97.0	103,400	56,500	176.6
Embaneft	15,700	71.4	17,000	11,000	142.7
Other trusts	35,600	62.0	43,800	27,150	131.1
Total	1,908,300	86.9	2,091,200	1,914,050	99.7

Drilling (in meters)

Azneft	53,570	70.1	62,979	69,678	76.9
Grozneft	11,756	75.4	17,081	18,159	64.7
Maineft	3,786	78.9	5,195	3,026	125.1
Embaneft	2,410	65.3	2,864	987	244.2
Other trusts	3,833	49.1	6,119	4,909	78.1
Total	75,355	69.5	95,238	96,759	77.9
Consisting of:					
Production drilling	54,349	72.7	71,836	72,366	75.1
Wildcatting in producing fields	13,765	67.9	13,023	16,363	84.1
Wildcatting in new areas	7,241	54.4	10,379	8,030	90.2

Runs to Stills

Azneft	1,120,000	97.5	1,099,600	1,121,000	99.9
Grozneft	489,400	80.0	535,500	529,500	92.4
Aviafuel	15,700	191.5	24,900	15,000	104.7
Sredazneft	3,500	59.3	4,600	2,400	145.8
Total	1,628,600	91.8	1,664,600	1,667,900	97.6

Production of Gasoline (tons)

Azneft	94,100	96.3	101,900	93,600	100.5
Grozneft	118,000	90.0	127,900	130,300	90.6
Aviafuel	6,550	82.2	9,980	1,900	344.7
Sredazneft	330	47.1	500	140	235.7
Deduce inter-refinery transfers	2,100	....	2,100	8,500	..
Total	216,880	91.9	238,180	217,440	99.7

Partial view of oil field material and equipment at camp in Comodoro Rivadavia, Argentina

VENEZUELA

Venezuelan crude oil production in February totaled 10,920,557 bbls., or a total of 390,020 bbls. daily, a 11.9 per cent gain over the February, 1934, total of 9,769,200 bbls., or 348,900 bbls. daily.

The February daily average was approximately 15,000 bbls. under the 405,156-bbl. average for January which was 15.6 per cent greater than the 350,270 bbls. in January, 1934. For the first two months of this year the daily average production of Venezuela was 397,900 bbls., a gain of 48,290 bbls. over the average for the same period in 1934.

The operating situation indicated by the February data is similar to that shown in January and previous months. The increased production of the pools in the Lagunillas area and the 50 per cent gain in Quirequire Field of eastern Venezuela accounts for practically all of the increased production with some of the remaining fields showing losses when compared with 1934.

In February the three principal producing companies in Venezuela, all produced substantially more crude than in January with a small gain by the Venezuelan Gulf. The remaining companies reported decreases. The following table gives the production by months and fields:

VENEZUELA CRUDE OIL PRODUCTION, FEBRUARY, 1935, AND 1934

(Data in barrels)

Fields—	Feb., 1935	Feb., 1934
Lagunillas	6,178,364	4,874,500
La Rosa-Ambrosio	1,500,754	1,790,900
Mene Grande	1,070,600	1,140,700
Quirequire	1,291,012	895,100
Tarra	439,600	471,700
Cumarebo	229,327	337,200
Concepcion	117,000	156,500
El Mene	78,400	82,300
La Paz	15,500	20,300
Total	10,920,557	9,769,200
Daily average	390,020	348,900
January	405,156	350,270
January-February	397,900	349,600

Companies—	Feb., 1935	Feb., 1934
Lago Pet. Corp.	3,599,033	2,902,100
Venezuelan Oil Con., Ltd.	2,728,500	2,520,000
Creole Pet. Corp.	1,825,424	1,485,700
Venezuelan Gulf Oil Co.	1,179,000	1,166,500
Caribbean Pet. Co.	1,079,600	1,140,500
Colon Oil Corp.	439,600	471,900
Br. Con. Oilfields, Ltd.	78,400	82,500
Total	10,920,557	9,769,200

A GOOD MIXER

MIXING Universal liquid inhibitor with gasoline is even simpler than mixing a highball and it is much more profitable

Universal inhibitor is a true liquid—it blends readily with gasoline, it doesn't settle out of solution—it burns up cleanly with the fuel and leaves no solid deposit in the engine

Universal liquid inhibitor is a chemical cop that stops gumbugs from forming in your cracked gasoline

The chemical cop saves acid costs

Saves treating losses of gasoline

Preserves antiknock rating

The easiest profit you can make

Do you want to know how much the chemical cop can save for you?

Universal Oil Products Co
Chicago Illinois

Dubbs Cracking Process
Owner and Licensor

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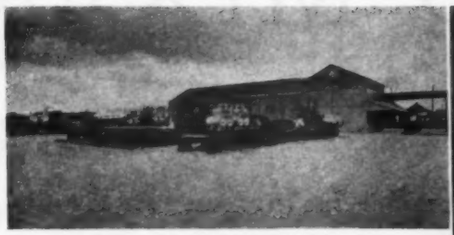
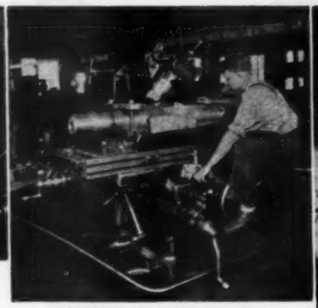


Branch stores Texas, Oklahoma and Kansas. Complete stocks. Sales and Rentals. This is Houston store

Heat-treating has long been developed to a high point of perfection in the Bridgeport Plant



A Bridgeport Double-3-Point Rotary Reamer in process. High speed, accurate machines reduces the cost of Bridgeport Rotary tools

Forge shops equipped with all sizes of steam hammers. Here is one of the largest in the Mid-Continent

Best grades, all sizes, used Casing and Line Pipe always ready for delivery from conveniently located and well stocked yards

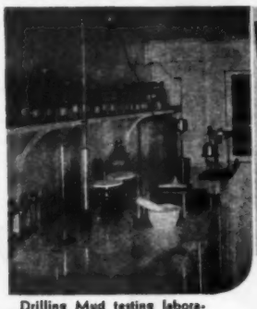
BRIDGEPORT'S SUPPLY SERVICE

A WELL ROUNDED SERVICE — ADEQUATE AND

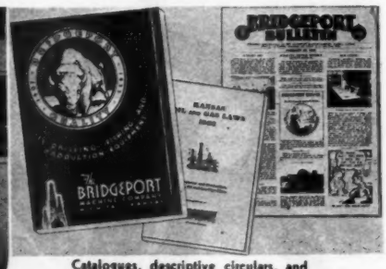
At the Wichita factory a special department is maintained for repairing and rebuilding oil country equipment of all kinds

A corner of the supply and fittings department of one of Bridgeport's branch stores. All standard makes carried

A corner of the oldest, most completely equipped and most efficiently operated underreamer repair department in the world



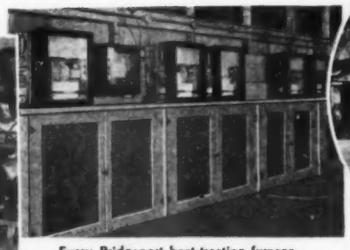
Drilling Mud testing laboratory at Oklahoma City store. Facilities of laboratory and services of engineers furnished free of cost



Catalogues, descriptive circulars, and the semi-monthly Bridgeport Bulletin are practical aids to the buyer in helping him purchase to the best advantage

Bridgeport never re-discounts its customer's accounts and notes. The banks with which the company does business (shown here) have for years extended definite lines of credit (even through the depression)

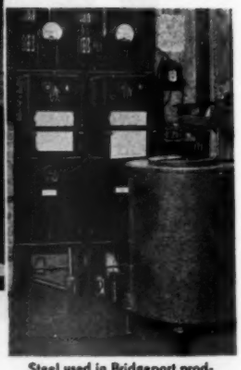
25, 35, 40-h. p., re-built pumping engines always on hand. Every engine guaranteed. Carried at Wichita and branch stores



Every Bridgeport heat-treating furnace is equipped with a recording pyrometer, entirely eliminating "guess work" in the handling of steel

Surplus equipment of all kinds is purchased, reconditioned and sent to territories where it can be used again

Operators are as near Bridgeport as the telephone. Call any store or office "Station to station" from anywhere



Steel used in Bridgeport products tested in electric "hump" furnaces to determine the proper heat-treatment required to produce a given result

Corner of the Bridgeport Printing Department, where booklets, advertising literature and business stationery is produced at sizeable savings in cost

In many points where regular branches are not maintained Bridgeport carries Aquagel and Baroid Drilling Mud Stocks. Any quantity can be delivered promptly from these branch stocks

Material for delivery anywhere may be ordered through Bridgeport centrally located sales offices. Tulsa phone: 4-8580; Dallas phone: 3-1225

STORES and SALES OFFICES at

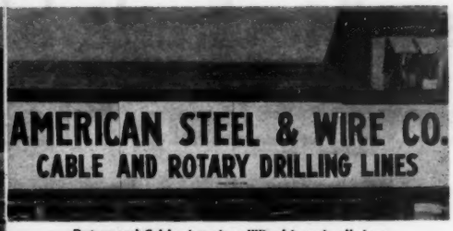
HOUSTON - DALLAS - TULSA - OKLAHOMA CITY - PAMPA - KILGORE - McPHERSON - RUSSELL AND

Trained, competent and experienced service men and salesmen ready day or night to serve Bridgeport customers promptly and well

The name "Bridgeport" on a tool has long been recognized by experienced men as a mark of fine quality, correct design and precision workmanship

A few of the company residences at the Wichita plant where service men and mechanics, who are subject to call night or day, live

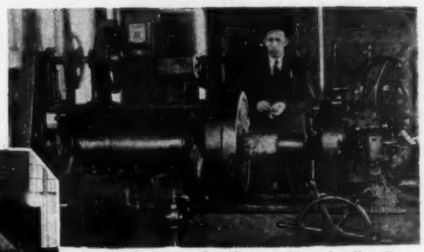
All sizes of long Drill Collars, an item not carried by the conventional supply company, may be obtained promptly from Bridgeport stocks



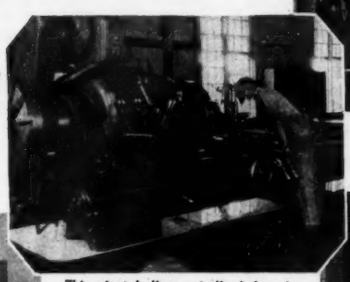
Rotary and Cable American Wire Lines, in all sizes and lengths, are carried throughout the territory. Prompt delivery anywhere

IS COMPLETE!

EFFICIENT IN EVERY DETAIL



Latest type pipe threading machines handle all sizes of pipe from 2-inch to 12½-inch. These machines cut threads as accurately and true as that on new pipe

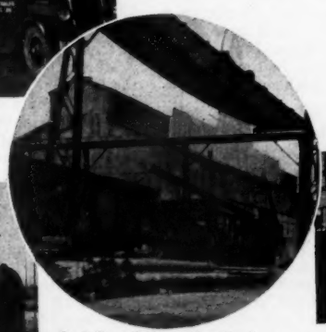


This giant hollow spindle lathe, the only one in the territory, reduces costs on many types of work

Teletype for rapid sending and receiving telegrams. This machine types the message accurately as it is received over the wires

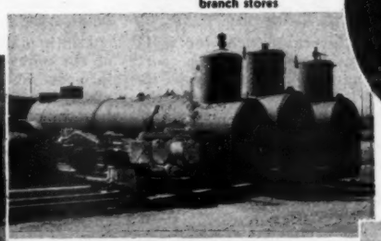
One of the few supply company general offices outside the high tax district and on which no rent is paid

Bridgeport operates its own transportation system. A fleet of trucks is maintained to move material from the fields to the shop and from the factory to branch stores

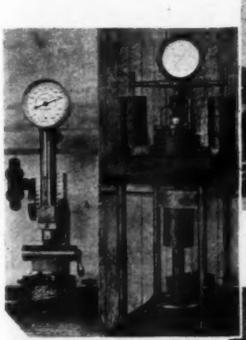


Santa Fe and Frisco railroad tracks serve the Wichita plant and material yards. Carload shipments are made promptly with a minimum of handling costs

While the Bridgeport plant is not rated as the largest in the industry, it is one of the most efficiently equipped. Here is a general view of a part of the machine shops



Always several re-conditioned complete rotaries on hand. We can usually furnish the size and type wanted promptly



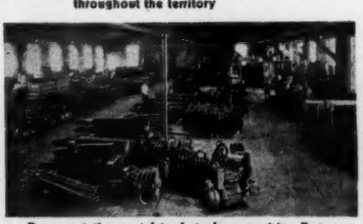
Expert mechanics are aided by the latest scientific instruments in producing characteristic Bridgeport Quality. Here are Brinnell and Scleroscope hardness testers

Pleasant quarters, modern equipment, promotes efficiency and economy in handling every office detail. View in Wichita Office

Bridgeport distributes the products of the National Tube Co. All sizes of Casing, Drill Pipe, Line Pipe and Tubing carried in conveniently located yards throughout the territory

Giant electric cranes serve material and pipe yards at Wichita plant, effecting enormous economies in handling incoming and outgoing materials

View of the factory and general offices of the Bridgeport Machine Company located on the company's 35-acre tract, five miles from the center of Wichita



Representative rental tool stock, comprising Rotary and Cable tools of all kinds. "Any tool, Any time, Any place" for rental

A complete line of production equipment including Jensen Jacks, Allis-Chalmers Electrical Equipment, Waukesha Motors, etc., is carried in stock

BRIDGEPORT
MACHINE COMPANY
MANUFACTURERS DISTRIBUTORS
OIL DRILLING-FISHING AND PRODUCTION EQUIPMENT
GENERAL OFFICE AND WORKS: WICHITA, KANSAS

OTHER ACTIVE MID-CONTINENT & GULF COAST POINTS

Gasoline Trade Shakes Off Lethargy in Group 3 and Seems Headed for Higher Price Levels

By T. F. SMILEY

Distinct improvement in gasoline, with tank car prices headed for still higher levels, has enabled the Oklahoma (Group 3) market to shake off some of the lethargy and gloom which had been clinging to it for weeks. Among several bracing influences top place probably should be given to returning spring and favorable motoring weather, for these are providing welcome aid to projects being worked out for permanent stabilization at profitable price levels.

Ending their long indifference, jobbers are manifesting interest in the market and are beginning to put material in storage. The feeling seems to be general that the rally recorded in the last two weeks is not likely to encounter any serious setback and that a vigorous demand may be seen until the usual seasonal peak is reached next summer.

Better Conditions Reflected

Gratification is expressed over the marked change for the better in East Texas, reflected clearly in the Group 3 area. Less than 6 months ago motor fuel from East Texas was flooding northern markets, in some cases being sold at the pump for less than the cost of manufacture. Not only were refiners fighting each other, but they were ruining retail markets which naturally belonged to Oklahoma refiners. Today the quantity of East Texas gasoline finding its way into the Chicago and other Middle West markets is inconsequential.

Under restrictions imposed by federal and state tender boards and by other agencies operating to curb illegal operations, the production of gasoline in East Texas has been sharply reduced. Most of the lawful gasoline now made is going to points in the Southeast, the Gulf Coast and the East Coast under the directing hand of the recently organized East Texas Refiners Marketing Corp. It long has been recognized that these areas present the logical outlet for East Texas. Northern points, with their additional freight charges, have served simply as a dumping ground. This virtual removal of East Texas competition has been an extremely important factor in the renewed life now visible in Oklahoma's gasoline market.

Support Buying Started

Following a series of conferences held at the request of C. E. Arnott, who is supervising stabilization work under the Planning and Coordination Committee, and attended by representatives of integrated companies in the Mid-Continent territory, a line of action has been adopted looking to the purchase by these companies of any surplus gasoline accumulated by the smaller independent refiners without retail outlets of their own. The independents affected have held conferences also with a view of co-operating. The support buying already has started, and the tonic effect of this new departure is apparent.

Market observers have commented upon the fact that neither the East Texas marketing agency nor the Mid-Continent support-buying undertaking has been accompanied by any of the ballyhoo or tomtom beating which have marked some previous uplift movements now occupying cemetery lots. The very absence of cocksureness is regarded as a favorable sign, for it is interpreted as a recognition that no sort of stabilization enterprise can attain its object unless it is entered into by the various interests involved in a spirit of good faith and of willingness to yield some small individual advantage now and then for the sake of the wider measure of prosperity in which all may share.

Natural gasoline, which began a parachute descent in the closing days of 1934 after a remarkably long stay among the higher price levels, reached ground in the last week and rebounded faintly, without any indication, however, that it was likely to start on another flight. In the 11 weeks of its downward movement the 26-70 grade fell from 3¾ cents, the price which ruled in late December, to 1⅞ cents, at which some of the material changed hands late last week. As had been expected, the low quotations attracted enough buying to stop the dive of the naturals, and the 26-70 was commanding 2 cents as the present week opened.

Usual Formula Ignored

The common formula by which 18-pound natural sells at 20 per cent more than the 26-70 is seen to be ignored in current quotations. The explanation is that in recent weeks the demand for stabilized grades has been proportionately better than that for the 26-70. Some manufacturers are not equipped to make 18-pound profitably when the differential is 20 per cent. With the wider spread between the two grades, however, some of these manufacturers have begun stabilizing, resulting in decided curtailment of the 26-70 output, which enabled that grade to make a mild price recovery while the 18-pound quotations remained where they were last week.

The better refined gasoline market is helping the naturals a little.

Continuance of cold weather in some of the northern states exerted a firming influence on the furnace oils, supplies of which had run low, resulting in distributors being compelled to rush orders for material to replenish their stocks.

(Continued on Page 32)

Refined Oil Market Barometer

With favorable motoring weather increasing consumption and with developments along several different lines calculated to remove existing evils, indications point to a steadily improving gasoline market. Healthier conditions already are appearing in most areas. Natural gasoline is entering its season of low spot demand and there is no reason for expecting a rise. Further slipping of furnace oils is likely to follow the end of current cold weather.

Mid-Continent.—Gasoline strong. Naturals weak. Kerosene somewhat unsteady. Lubricants unchanged.

East Coast.—Kerosene weak. Gasoline lacking vigor. Steam-refined and bright stocks off. Furnace oil lower.

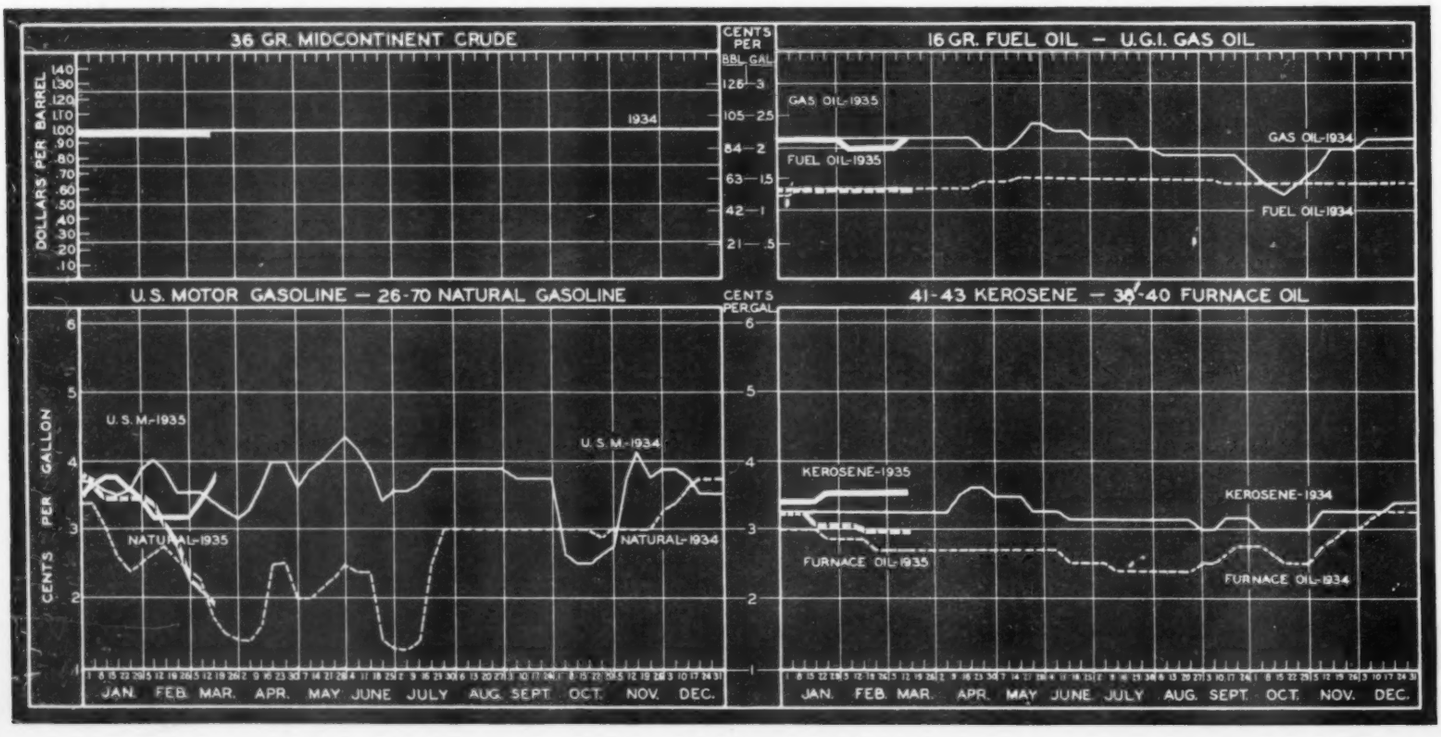
Gulf Coast.—Gasoline gaining strength. Kerosene weaker and easing up materially.

Pennsylvania.—Gasoline firmer. Cylinder stocks off.

California.—Market moderately stable. Natural gasoline weak and prices lower.

Chicago.—Gasoline stronger and higher. Kerosene firm. Heating oils quiet.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



Kerosene Prices Are Reduced on the East Coast Showing Flexibility in Refining Operations

By C. O. WILLSON
New York Bureau, The Oil and Gas Journal

NEW YORK, Mar. 11.—Kerosene tank car prices at refineries and water terminals along the Atlantic seaboard north of and including New York were reduced one-half cent to 5½ cents per gallon the latter part of last week in what most observers termed a generally "sloppy" refinery market in this territory. Other price reductions for the week included range oils and No. 1 furnace oils. Steam refined stocks and bright stocks were weak and prices were reduced from one-half to 1 cent per gallon for both export and domestic movement. Pennsylvania neutrals which have been strong for several weeks were reduced 2 to 2½ cents in current quotations for export movement. Crude scale wax prices were lower with predictions of general reductions in the refined grades within the next few days.

It was assumed that the reductions in kerosene, range oil and high gravity furnace oil distillates would spread to other sections to include the entire Atlantic seaboard. The kerosene market, which is the controlling factor in bringing about the reductions in range oil and furnace oil, has been weak for over a month following a fall and early winter period of exceptional strength. Available information indicates that the weakness is due to an increased supply of kerosene brought about by the prices which prevailed over a period of several weeks during which they were as high or higher than the spot market for gasoline. This situation resulted in refiners increasing the yield of kerosene at their plants at the expense of gasoline. The market developments of the past two weeks is another demonstration of the flexibility in refinery operations which permits operators to increase the yield of a product whenever market conditions are favorable and prices high resulting in a return to the normal price relationship between the products in a short time.

Kerosene, range oil and No. 1 furnace oil at 6 to 6¼ cents in the face of a weak gasoline market at 5¼ to 6 cents cannot be continued indefinitely even in the face of a strong demand such as kerosene sellers enjoyed for over a year.

In addition to the larger output of kerosene available from eastern refineries, shipments from the Gulf have increased in recent weeks. The pressure of increased supplies has been felt in the consumer as well as the tank car markets. Tank wagon prices have been reduced at many points in New York and New England due to the companies wishing to reduce their inventories and find outlets for current supplies. In metropolitan New York the tank wagon price on No. 1 furnace oil has been reduced one-half cent to 8 cents.

Those in touch with the kerosene market believe that prices may go lower. Supplies in this territory are higher than they were a year ago, and it is feared there will be a general tendency to reduce these stocks over the next few weeks. The lower prices will eventually tend to curtail output and should also stimulate demand in foreign countries. It is said that the exceptionally high prices which became effective in early January caused several exporters to reduce their purchases. The export market at the Gulf has recently weakened.

Spot Gasoline

The spot gasoline market in this territory has not shown any improvement over the past week either here or the export market at the Gulf. There have been reports that the East Texas and Gulf markets were stronger, but this change, if any, has not been in effect long enough to be reflected in this market. The latter part of last week, middle octane U. S. Motor gasoline was offered at delivered price here around 5 cents. Some terminal operators in this section with substantial stocks on hand have been offering special concessions in tank car and barge shipments. The usual posted prices continued are 5¼ cents for low octane, 5½ cents for middle octane, 5¾ cents for 65 octane and above, and 6 cents for ethylized regular grades of the major companies. There are sellers asking one-fourth above these quotations, and at the same time gasoline has been sold one-eighth to one-fourth cent less.

Hope for Improvement

The optimistic are stressing the fact that with the Federal Tender Board in operation again in East Texas, hot oil operations are decreasing steadily. They feel that the situation there will shortly be on a better basis than any time since the field became the source of marketing troubles. It is also said that once there is certainty that hot oil operations are under control, there will be substantial buying on the part of major refiners with the view of removing any excess material that has accumulated and is overhanging the market at that time. It is predicted that the effects of this program will be apparent in the near future. The aim will be—as it has been for the past year and a half—to bring about a condition in which gasoline prices can advance to the point where they will be in line with the $1 base price for crude oil in the Mid-Continent. In this connection it is also said that crude runs to stills at refineries will be regulated so as to bring a more favorable stock situation over the next 60 days.

These programs appear to be the only way out so far as the immediate gasoline market is concerned. Failure it is assumed in some circles will mean a break in the crude oil market to the point that refiners will not be forced to absorb all the losses brought about by present low prices.

Gasoline Futures

In connection with the gasoline market considerable interest is being manifested in local marketing circles regarding the probable future significance of the trading in gasoline and crude oil futures which started last week at the Commodity Exchange. The trading to date as was expected has been small and it will probably require several months or a year to determine the full significance of the development from a standpoint of the month-to-month movement of these products.

At present the gasoline trading is based on the Gulf as the delivery point. This is more an export than a domestic market so far as gasoline is concerned and has served to focus the attention of those who are factors in foreign markets as well as those in the domestic end. It is believed that the hedging possibilities will especially appeal to foreign buyers who are accustomed to buy with deliveries over a period of several months. The Exchange offers the opportunity for the buyer to protect himself against losses in these long-time agreements. It is felt that due to this protection, the Exchange if generally used, will tend to facilitate foreign trading and benefit refiners in this country who have lost 60 per cent of their foreign business over the past four years. The trading in June futures, the first delivery month was at prices approximately one-half cent above the spot quotations at the Gulf.

There was considerable discussion locally in regard to the oil administrator's latest ruling in regard to exclusive contracts in the retail distribution of gasoline and other products. Under the new ruling distributors cannot be held to their contract to confine their sales to the products of one company.

While this order if enforced might result in the concelling of many thousands of contracts in this territory, it has not caused as much concern as was expected when the ruling was first announced. Some question the legal authority of the administrator under the code to make such a ruling and predict that it will be called to the attention of courts. The latter, it is said previous to the NRA, have upheld the legal position of contracts providing for the exclusive sale of products through dealers. It is also contended that the new ruling is inconsistent with the efforts toward stabilization. It is felt that the control exercised by sellers through the 100 per cent contracts has tended to prevent certain practices to marketing where the distributors handle several products.

Fuels

Prices on Nos. 2, 3 and 4 furnace oils are unchanged at 4½ cents despite the one-half cent reduction in the No. 1 grade. Industrial fuel oil is selling at 4 cents in tank car lots with gas oil and Diesel oil to the domestic grade generally quoted at 4½ cents. To the marine trade, Bunker C at $1.15 and Diesel fuel at $1.89 appear steady.

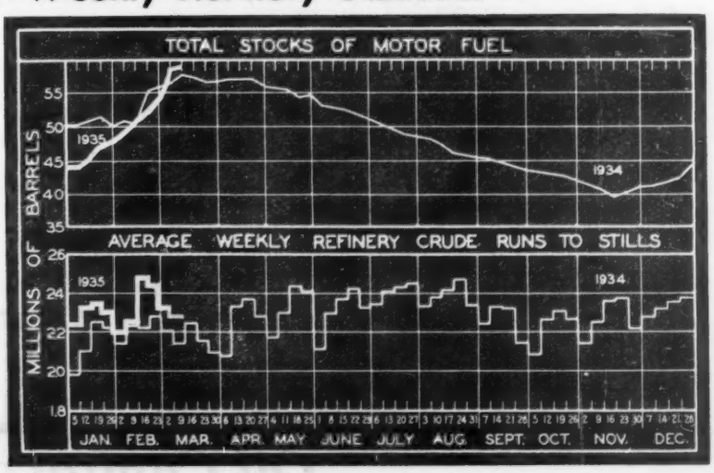
Paraffin base lubricating oils continue weak. Several grades of steam refined stocks are one-half to 1 cent lower than they were at the start of the month. The No. 8 Pennsylvania grade bright stock in barrels is again quoted to the export trade at 22 cents. Pennsylvania neutrals to the export trade have declined in price recently with 200-3 quoted as low as 32 cents in barrels.

Crude scale wax has dropped to a low of 2.25 cents. Refined wax continues unchanged with predictions that sellers will find it necessary to reduce quotations in the near future in an effort to stimulate buying.

American Petroleum Institute Weekly Refinery Statistics

Week Ending March 9, 1935

	Capacity reporting per cent	Daily crude runs (bbls.)	Finished motor fuel (bbls.)	Gas oil and fuel oil (bbls.)
East Coast	100.0	477,000	17,481,000	9,983,000
Appalachian	93.3	93,000	2,145,000	922,000
Indiana, Illinois, Kentucky	94.6	310,000	9,904,000	4,143,000
Oklahoma, Kansas, Missouri	83.7	251,000	5,402,000	3,894,000
Inland Texas	47.6	95,000	1,367,000	1,821,000
Texas Gulf	97.7	532,000	6,538,000	8,872,000
Louisiana Gulf	96.4	98,000	1,451,000	3,678,000
North Louisiana and Arkansas	83.7	38,000	268,000	401,000
Rocky Mountain	66.7	35,000	829,000	723,000
California	96.9	359,000	10,538,000	65,609,000
Total United States	89.8	2,288,000	55,923,000	100,046,000



10 REASONS WHY OIL COMPANIES MOVE OFFICES TO TULSA

1. Because 60% of the nation's petroleum is produced in the Mid-Continent, and Tulsa is the city from which the majority of this production activity can be most efficiently directed, and is the city from which it *is* directed, in *fact*.

2. Because 2/3rds of the nation's natural gasoline production is controlled from the Tulsa district. Natural Gasoline represents, by volume, 10% of the nation's motor fuel production.

3. Because Tulsa lies at the hub of the nation's Pipe Line Network, and much of the control of this vast network is lodged at Tulsa.

4. Because a majority of the great Oil Refineries in the Mid-Continent are directed and controlled from Tulsa oil company offices.

5. Because Group 3 oil prices, which are established at Tulsa, are the basis for computing oil prices not only throughout the nation but throughout the world.

6. Because vast oil marketing activities throughout the Middle West, the nation, and the world, are controlled from Tulsa.

7. Because Tulsa is the world's major financing center for oil activity. The main business of Tulsa's great banks is the financing of oil production, transportation, refining and marketing. Tulsa banks are consequently the world's leading specialists in oil financing.

8. Because Tulsa is world headquarters for information on the petroleum industry—made so by the concentration of oil industry executive activity here, by the concentration here of the headquarters offices of the world's leading oil associations, each of which is world clearing house for information in its branch of the industry, by the presence here of a large number of expert petroleum geologists, and by the natural development here of special facilities for providing oil industry information. These include the Petroleum Division of the Tulsa Public Library, the Library of the School of Petroleum Engineering of the University of Tulsa, the industry's leading trade publication, namely The Oil and Gas Journal, and such private enterprises as, for example, the Mid-Continent Map Company which specializes in furnishing up-to-the-minute abstract maps of producing areas. News developments in the oil industry anywhere in the world are telegraphed post haste to Tulsa oil companies, and Tulsa news and trade papers—and the quick exchange of information in daily man to man contact, in Tulsa, has a value which cannot be estimated.

9. The concentration of producing, pipe line, refining and marketing companies here has brought to Tulsa the factories, warehouses and sales offices of hundreds of oil equipment and supply manufacturers, making Tulsa today the world's leading center of oil equipment purchasing. There is no standard item of equipment an oil company might desire which is not adequately represented at Tulsa by salesmen, warehouse stocks and sales offices, so that information, literature and catalogs are available at a moment's notice.

10. Last but not least is the fact that the concentration in Tulsa of oil executives and office personnel—a substantial and prosperous class of business men—has financed the development of Tulsa into an extraordinarily fine city in which to live. Tulsa has been called the most metropolitan city of her size in the world. She has fine office buildings, fine hotels and stores, fine residences, fine amusement facilities, fine schools and parks, and one of the very finest water supplies in the entire world.

To be in touch with what is going forward in the operations of Tulsa's 44 major and 550 smaller oil companies, it is necessary for an oil company to make its headquarters in this city. For detailed business and industrial information of any kind pertaining to Tulsa, address the Tulsa Chamber of Commerce.

TULSA

Oil Capital of the World

NATURAL GASOLINE MANUFACTURE

California Stocks Increase as Utilization Declines

Natural gasoline production in California during January was 34,134 bbls. daily, an increase of 1,649 bbls. daily over December production, according to the California division of the United States Bureau of Mines. Refinery utilization decreased severely, from 28,747 bbls. daily to 23,063 bbls. daily and shipments also decreased, from 2,254 bbls. to 273 bbls. daily, so that there was a considerable addition to storage, 8,357 bbls. daily, during the month. The decline in refinery utilization resulted in a surplus for the month of 8,357 bbls. daily compared to a deficit in December of 397 bbls.

NATURAL GASOLINE, INCLUDING LIQUEFIED PETROLEUM GAS

Supply

	Daily av., bbls. Jan.	Dec.
Total production	34,902	33,226
Stock transfer (deliveries) receipts—net	(585)	6
Net total	34,317	33,232
Deduct refinery requirements:		
Run to stills	1,686	1,721
Blended	21,377	27,026
Total	23,063	28,747
Add refinery output:		
Natural gasoline—net	132	202
Net refined production	132	202
Net current supply	11,386	4,687
Demand		
Domestic demand including bunkers	1,176	1,119
Shipments to Alaska and Hawaii	3	3
Rail and truck shipments to U. S. points outside Pacific Coast territory	10	5
Demand in domestic market area	1,189	1,127
Shipments, Pacific foreign inc. Canal Zone	260	2,246
Total market demand	1,449	3,373
Losses (gains) unaccounted for—net	1,580	1,711
Total current demand	3,029	5,084
Surplus or (deficit)	8,357	(397)

NATURAL GASOLINE PLANT OPERATIONS

January, 1935

Field—	Gas treated (thou. cu. ft.)	Natural gasoline produced (gallons)
San Joaquin Valley:		
Elk Hills	67,072	108,450
Kettleman Hills	13,022,669	15,813,429
Midway-Sunset	1,186,395	2,164,234
Mountain View	674,044	548,814
Miscellaneous	412,430	498,850
Coastal region:		
Elwood	194,990	322,191
Rincon	71,723	87,444
Santa Maria	165,179	400,998
Ventura Avenue	3,647,692	3,997,949
Miscellaneous	260,480	246,083
Los Angeles Basin:		
Coyote	572,664	861,801
Dominguez	882,027	1,574,578
Huntington Beach	2,046,539	3,110,828
Inglewood	113,762	166,712
Long Beach	1,918,375	6,206,992
Playa Del Rey	250,212	752,441
Richfield	389,795	637,760
Rosecrans	541,800	638,573
Santa Fe Springs	2,810,455	4,664,396
Seal Beach	418,363	579,653
Torrance	102,063	223,241
Miscellaneous	292,936	836,978
Total all fields	30,041,665	44,442,335

Distribution (Gallons)

Stocks begin'g of month	2,803,154	
Prod. during month	44,442,335	
Delivered to refineries		43,145,072
Delivered to jobbers, brokers or blenders		838,216
Blended at plants for prod. of motor fuel		3,045
Losses		36,790
Stocks end of month		3,322,366
Total	47,245,489	47,245,489

Liquefied petroleum gas production...999,431 gals.=23,796 bbls.
Motor fuel produced 5,147 gals.= 122 bbls.

Utilization of Natural Continues Upward as Mid-Continent Stocks Decrease

This report, the first of its kind, summarizes data submitted to the Bureau of Mines on form 944a of the Petroleum Administrative Board. Form 944a was approved by a committee representing the natural gasoline industry, which desired more detailed information as to distribution than had been shown in the monthly petroleum statement of the Bureau of Mines.

Daily average natural gasoline production in January was 4,450,000 gallons, an increase of 70,000 over the average in December, but 50,000 gallons short of the high point of November. The largest increase in January occurred at Kettleman Hills, although the Seminole, Panhandle and East Texas districts also showed gains in output. Total stocks of natural gasoline increased slightly over 10,000,000 gallons during the month; all of this gain was in California, in fact, stocks east of California declined.

Deliveries of natural gasoline from plants and terminals to refineries in January, 1935 totaled 122,771,000 gallons, or about 90 per cent of total deliveries. The remaining 10 per cent comprised exports of 3,395,000 gallons and "direct sales." Direct sales include principally shipments to bulk plants not at refineries, from which points the natural gasoline is sold to consumers either as a straight stabilized natural or as a blend with naphtha.

The average vapor pressure (Reid) of the shipments to refineries was 20.9 pounds or considerably under that of 26-70 natural, the generally accepted standard grade. The average vapor pressure of the exports was several pounds under the average for refinery shipments reflecting the desirability of reducing transportation losses through stabilization; the average of "direct" shipments was also lower for the same reason.

PRODUCTION AND STOCKS BY FIELDS

(Thousands of gallons)

	Production Jan. 1935	Dec. 1934	Jan. 1934	Stocks Jan. 31, 1935 At refineries	Jan. 31, 1935 At plants and terminals	Dec. 31, 1934 At refineries	Dec. 31, 1934 At plants and terminals†
East coast	...	...	...	4,998	...	7,392	...
Appalachian	6,800	6,300	6,900	588	3,524	378	2,801
Ind., Ill., Ky., etc.	900	900	800	1,596	379	2,688	290
Oklahoma—	29,800	30,200	31,400	3,444	11,100	3,486	10,401
Oklahoma City	9,500	9,600	9,000	(*)	2,619	(*)	3,054
Osage County	3,700	3,900	3,700	(*)	3,323	(*)	2,620
Seminole	7,300	6,200	7,700	(*)	1,744	(*)	1,384
Rest of state	9,300	10,500	11,000	(*)	3,414	(*)	3,343
Kansas, Mo., etc.	2,700	2,700	2,400	588	732	336	681
Texas—	43,700	43,300	35,200	7,476	34,020	7,098	29,715
Gulf	2,500	2,200	(‡)	7,104	8,369	6,636	2,050
East Texas	4,800	4,400	2,300	(*)	480	(*)	413
Panhandle	25,500	25,300	19,100	(*)	925	(*)	23,874
North Texas	2,100	1,800	1,900	(*)	22,617	(*)	765
West Central	6,500	7,200	7,700	(*)	1,295	(*)	2,142
Rest of State	2,300	2,400	4,200	(*)	334	(*)	471
Louisiana	3,900	4,000	3,500	42	6,882	84	8,271
Arkansas	1,000	1,000	1,100	84	185	126	171
Rocky Mountain	4,800	5,200	4,700	1,134	1,360	882	993
California	44,400	42,300	42,000	108,948	3,222	98,490	2,803
Huntington B'ch	3,100	3,300	2,900	(*)	(*)	(*)	(*)
Kettleman Hills	15,800	13,900	13,600	(*)	(*)	(*)	(*)
Long Beach	5,200	5,800	5,800	(*)	(*)	(*)	(*)
Santa Fe Spgs.	4,700	4,700	5,500	(*)	(*)	(*)	(*)
Ventura Ave.	4,000	4,000	3,800	(*)	(*)	(*)	(*)
Rest of State	10,600	10,200	10,400	(*)	(*)	(*)	(*)
Total	138,000	135,900	127,000	128,898	61,344	120,960	56,126
Daily average	4,450	4,380	4,100	...	...	...	...
Total (thousands of barrels)	3,286	3,236	3,024	3,069	1,461	2,880	1,336
Daily average	106	104	98	...	...	...	...

*Not available. †New basis to compare with 1935. ‡Included under "Rest of State".

RECEIPTS AND DELIVERIES OF NATURAL GASOLINE

(Thousands of gallons)

	Deliveries from To refineries	To refinery-owned bulk plants	To jobbers and retailers	Exports	Receipts At refineries	At refinery-owned bulk plants	By jobbers and retailers
East Coast	...	...	...	...	3,241	16	42
Appalachian	4,284	270	762	262	2,101	270	651
Ind., Ill., Ky., etc.	835	...	167	...	15,832	117	848
Oklahoma	27,318	446	830	41	17,880	15	274
Kans., Mo., etc.	2,173	8	62	...	12,937	383	248
Texas Inland	33,596	218	1,474	25	23,408	112	1,699
Texas Gulf	1,839	...	196	2,729	...	...	...
La. and Ark.	5,890	...	1,132	...	1,735	16	762
Rocky Mt.	4,029	7	58	...	2,830	15	157
California	42,807	...	842	338	42,807	...	842
Total	122,771	949	5,523	3,395	122,771	949	5,523
Daily average	3,960	31	178	110	3,960	31	178
Total (thousands of barrels)	2,923	23	132	81	2,923	23	132
Average V. P.	20.9	13.5	17.9	16.7	20.9	13.5	17.9

DETAILS OF SHIPMENTS TO JOBBERS, RETAILERS, AND REFINERY-OWNED BULK PLANTS

(Thousands of gallons)

Point of delivery	Point of receipt Texas	Okla.	Wisc.	Iowa	Minn.	Other	Total
Texas	1,564	...	32	83	49	160	1,888
Oklahoma	46	166	208	114	142	599	1,276
Kansas	...	2	...	4	8	56	70
Louisiana	201	121	...	8	8	270	608
Other	...	...	...	...	1	2,629	2,630
Total	1,811	289	240	209	209	3,714	6,472

Committee D-2 of A.S.T.M. Accepts Oberfell Report

Revision of the Reid vapor pressure test for motor fuels was the principle problem brought up for discussion at the meeting of the D-2 committee of the A.S.T.M. in Philadelphia during the four-day general meeting of all committees March 4 to 8. Another important report heard was that of the committee on viscosity standards and the standardization of the Saybolt viscosity tubes. The report of the latter committee brought out the need for amplifying and clarifying the text of the methods of test as designated in D 88-33. A series of changes were recommended and these were approved with small revisions by those present.

Subcommittee 12 on natural gasoline, headed by George Oberfell of the Phillips Petroleum Co. as chairman, submitted a revision of method D 323-32T on vapor pressure taken by the Reid method. The suggested changes were shown to increase the scope and accuracy of the original procedure. The report of the subcommittee was accepted.

Helping Mr. Oberfell in this work were H. T. Bennett of the Mid-Continent Petroleum Corp., E. W. Dean of the Standard Oil Development Co., J. G. Detwiler of the Texas Co., Dr. H. C. Dickinson, chief of Heat and Power for the Bureau of Standards, H. T. Kennedy of the Gulf Research & Development Corp., and Leon W. Parsons of the Tide Water Oil Corp.

The report of the A.P.I. committee on temperature measurement was assigned to subcommittee 15 on sampling and gauging.

Texas Cancels Permit to Operate Gulf Coast Plant

AUSTIN, Mar. 9.—An order, cancelling the permit of Garland Clymore to operate an 80,000,000-foot daily natural gas stripping plant in the Agua Dulce Field of Nueces County, with the privilege of popping the stripped gas into the air, was signed by the Texas Railroad Commission here.

The order, based on conditions in the permit, required the operator revert to terms of a prior permit which allowed the stripping operation only if the dry gas were repressured into the wells.

Chairman Ernest O. Thompson said testimony had been produced to show the repressuring was feasible.

Ten days' time was given to plant in which to provide for the repressuring, which had been waived by the recent permit the new order revoked.

Petroleum Chemists Hear Adams at A.C.S. Meeting

Dr. Roger Adams, president of the American Chemical Society, spoke before a large gathering of Oklahoma chemists at the Tulsa Chamber of Commerce Building, Tulsa, Saturday evening, March 9. The address was a very interesting one, giving evidence of the recent progress obtained by the chemists in synthetic preparations relating particularly to the vitamines. The address was an inspiration especially to the petroleum chemist because much of the research work now being conducted in organic chemistry uses the carbon compounds derived from petroleum. The lower hydrocarbons are powerful local anesthetics which have been recently placed on the market, one of these being used in a concentration of so low as one-half of 1 per cent. Following Doctor Adams' address, there was an interesting discussion, many questions being answered by him.

Late Fields

KANSAS

The Rose Spring Oil Co.'s No. 1, C SW SW Section 10-24-4w, Reno County, Kansas, produced 1,048 bbls. in 48 hours through 2-inch tubing, with the swab stuck in the hole. The well was given a potential rating of 524 bbls. per day. Chat lies at 3,296-3,385 feet.

OKLAHOMA

Pure Oil Co.'s No. 2, C NW SE NE Section 2-8-5, Seminole County, Oklahoma, found water in the second Wilcox sand at 4,345-4,413 feet, and was plugged back to 4,035 feet and acidized. It pumped 483 bbls. the first 24 hours and 607 bbls. the second 24 hours.

Stanolind Oil & Gas Co.'s No. 2 Norris Royalty, in Section 25-2-6, Fitts Pool, Pontotoc County, reported making 8 per cent emulsion a week ago, has since been repaired enough to cut emulsion down to 2 per cent. The well is produced through 2½-inch tubing with adjustable bean between well head and trap. The bean opening has been varied and it is believed that by proper adjustment it is going to be possible to change the character of the emulsion. The emulsion is not difficult to treat, as it separates easily in the stock tanks. The analysis of the water accompanying the oil shows 115,000 parts per 1,000,000 solid. This is true salt brine and in that particular differs from sulphur water encountered in the Simpson formation in shallower wells within the Frank Graben. There is some consideration being given to running a Schlumberger electric coring instrument in this well to determine if possible the portion of the formation from which this water is entering the well.

Gasoline Trade Shakes Off Lethargy in Group 3

(Continued from Page 28)

Kerosene ran into a bit of unsteadiness and a few price concessions were reported. The tone was better this week and the quotations of a week ago stood. The temporary weakness was attributed to the fact that so many refiners had turned from distillates to kerosene in preparation for the expected spring demand.

Gas oil for cracking stock was firmer, with slight price increases. The lubricant group was unchanged in either market position or quotations. Wax continued weak.

WEWOKA WILL CELEBRATE

The twelfth anniversary of the discovery of oil in the vicinity of Wewoka, Seminole County, Oklahoma, will be celebrated at Wewoka on Saturday and Sunday, March 16 and 17. A pageant and banquet will be held Saturday. The Sunday celebration will be one of thanksgiving, pastors of churches taking active part. It was on March 17 that R. H. Smith opened the Wewoka Field, which has since produced nearly 36,000,000 bbls. of oil. The discovery led to the development of what later became known as the Greater Seminole Field in Seminole, Hughes, Pottawatomie and northern Pontotoc Counties, which up to January 1 of this year had produced close to 819,000,000 bbls. of oil, and which is still pouring out 125,000 to 150,000 bbls. per day under proration.

EAST TEXAS CHAPTER

FORT WORTH, Tex., Mar. 11.—The East Texas Chapter of the American Petroleum Institute Division of Production will hold a joint banquet with the vocational department of the Kilgore schools at Kilgore, March 15. L. C. Peters, superintendent of the Humble Oil & Refining Co., is the choice for chairman for 1935, with T. L. (Pat) Regan, Stanolind Oil & Gas Co., vice chairman, and M. U. Bateman of the Humble Oil & Refining Co., secretary and treasurer. The general chairman of the Kilgore banquet is C. E. Reistle, of the East Texas Engineering Association.

Decrease in Overproduction Is Expected in East Texas Field During the Week

By L. E. BREDBERG

FORT WORTH, Tex., Mar. 11.—The weekly refined products shipment report including the seven days between February 24 and March 3, shows a total of 1,538 cars moved within that time, or an increase of 524 cars over the previous week, suggesting that shippers shipping out as much as they could before the Federal Tender Board went into action March 4. Of these cars 1,479 went out under Railroad Commission tenders, and only 59 cars were untendered, 821 cars going to Gulf Coastal points, 432 cars interstate and 285 within the State.

On March 4 there were only 50 cars shipped out in contrast to 195 cars the day before. March 5 only 72 cars left the field, but on March 6 they increased to 101 cars.

Something new came out in the way of court cases and sentences this week. Harry Hunter was sentenced to two years in the penitentiary by a Gregg County jury at Longview on March 7 on charges of tapping a pipe line and running the oil into tanks of the Roco Refining Co. at Kilgore. Hunter was alleged to have tapped a line leading from the Gulf Production Co.'s No. 6 Culber, on June 24, 1934. This was the first conviction under the law making pipe line tapping a felony. Hunter's attorney has given notice of appeal.

The Federal Tender Board is having its own investigators make investigations into the origin of some of the oil and products for which tenders have been applied, refusing to issue a tender on products merely because they held a commission tender.

Injunction Asked

A petition asking injunction against the Federal Tender Board has been filed in the Eastern Division of the Federal District Court, under Judge Randolph Bryant's jurisdiction, but a decision is not asked for immediately. It is thought that if the present law is held insufficient the Government could go back to the present session of Congress and ask for something stronger to back up oil regulations. Chairman Norman L. Meyers told one applicant, "we are ready to go to court," adding that Congress is still in session and if the present regulations will not work "we will get something that will." Chairman Meyers said the application would be held over until other federal regulations had been complied with.

The refineries asking for an injunction against federal regulations are: Utah Refining Co., Gilliland Refining Co., Texas Oil Products, Southport Petroleum Co., Lake Refining Co., and Gladewater Gasoline Co. Agreement was reached between their attorney and the Federal Tender Board, whereby plaintiffs agreed for the board to make gauges of tanks, but that the refineries would not make reports to the board as required in the regulations. Two other refineries withdrew their application for injunctions.

"Creek" Oil

"Creek Oil" is again giving trouble. Two operators were granted injunction on March 7 in Federal District Judge R. J. McMillan's court at San Antonio restraining the Railroad Commission from interfering with the movement of 45,000 bbls. of oil picked up from three creeks in the Gladewater area. The court held that a contention that collusion existed between the petitioners and producers was not proved.

There were only 31 plants operating during the week ending March 8, a drop of 6 under the previous report, and the next report is expected to show probably only about 25 plants running.

Runs to refineries averaged only a little over 52,000 bbls. per day for the week ending March 8, or nearly 7,200 bbls. per day under the previous report. This helped to bring overproduction down to an estimated 35,000 bbls. per day. Another decrease is expected this week.

Refined products shipments for the week ending March 3, the day before the Federal Tender Board became active, were as follows:

Commodity—	No. of cars	Gallons
Gasoline	527	4,290,600
Residuum	482	4,064,585
Fuel oil	220	2,142,790
Casinghead gasoline	116	999,030
Distillate	89	725,600
Kerosene	57	462,080
Gas oil	42	343,120
Crude oil	5	40,490
Total	1,538	13,068,295

SUIT IN LOUISIANA

SHREVEPORT, La., Mar. 11.—The constitutionality of the Connally act was attacked in the federal court here in a motion filed in behalf of Griffin and Winters, oil refiners of Gladewater, Tex., to dismiss a federal injunction proceedings.

Griffin and Winters, operated by Glenn Griffin and R. E. Winters, were cited in an injunction action brought by the Government to restrain the alleged shipment of "hot" oil from East Texas. The others cited in the action were the O. K. Oil Co. of Shreveport and the Louisiana, Arkansas & Texas Railway.

A motion to dismiss was filed in behalf of the O. K. Oil Co., but it did not attack the constitutionality of the act.

By agreement the restraining order issued in the action was continued until the case may be heard. No date has been set for the hearing.

WASHINGTON NEWS

(Continued from Page 10)

reason it is the consensus that the industry will be treated in the general bill, just as any other industry.

The remarks of Donald Richberg before the Senate N.R.A. Investigating Committee that business which was purely intrastate in character should be eliminated have been construed by some as eliminating the code provisions for petroleum marketing. However, this was not the intention of Mr. Richberg. His remarks were directed only at the so-called service trades such as the cleaning and dyeing industry, barber industry, etc., and would not affect any industry which relied on interstate commerce to get its materials for conducting its business. Retail filling stations, it is claimed, will not be eliminated from regulation.

There were 17 specific recommendations suggested by Mr. Richberg to the Senate committee, which included abandonment of the so-called service trade codes; explicit authorization by Congress of administration activities to meet present emergencies; extension of the recovery act for two years; continuation of the present form of code administration with restrictions upon the exercise of public authority by private bodies, such as code authorities; clear standards set up by Congress including definitions of monopolies and monopolistic practices with definite legislation for control of natural resource industries; explicit power for the President to impose conditions and modifications of codes; power for the President to impose limited codes covering hours, wages and notoriously unfair business practices and waste of natural resources; standards of minimum wages and maximum hours; provision for financing code administration by the trade or industry; definition of the anti-trust provisions; continuation of Section 7 (a); and strengthening of enforcement machinery by preventing violations by equity procedure (injunctions), providing for punishment by fine for code violations and not by jail sentences, with provision for the compromise of liabilities incurred by reason of these violations.

New Regulations for Allocations to Refineries

WASHINGTON, D. C., Mar. 12.—The petroleum administration today announced new rules and regulations had been approved as recommended by the refinery committee. The regulations provide that the allocator make a critical study of the estimated demand by each refiner, such estimate broken down into sales through controlled outlets, contract sales, and spot sales. Comparisons shall be made with the actual demands for previous months, and also with the accuracy of past estimates as determined by the keeping of records of previous actual against estimated demands. Where such comparison shows demand estimates to have been inaccurate the allocator should, after reasonable hearing, correct the particular company's estimate accordingly.

Besides the actual demand for each refinery the allocator shall present to each allocating meeting the amount of actual demand for the district during the preceding month with a statement as to the method used in determining the actual demand for that period. This study should also be extended to include the previous 15 months. It should include sales through controlled outlets, contract sales and spot sales.

In all inter-district allocating meetings the district allocator shall submit a standard form of questionnaire showing summation of the information obtained from the individual companies in the district. The information furnished to these meetings shall also include the estimated demands presented by the individual refiners, the corrections made thereon and the amount of the district demand as revised. Stocks in each district must also be shown, but on a separate form for that purpose.

To meet the necessities of some refiners who, in order to manufacture products other than gasoline, find it necessary to manufacture gasoline in excess of their reasonable working stocks, provision is made that such refiners may submit to the national co-ordinator such data necessary to explain his need for such additional gasoline quota. If the request is approved by the national co-ordinator notice must be given to the district allocator who shall consider this in establishing seasonal stock allocations.

In determining allocations for current shipping demand, if it is found that the sum of the estimated shipping demand presented by the refiners is greater than the allocation to the district, allocator shall decrease the demand of each refiner in the district by the same percentage so that the total is the same as demand.

If the demand within the district cannot be met by such a process as the above, except by transfer from the inventory accumulation allocation to the current demand allocation, appeal should be made to the national co-ordinator for permission to so transfer the amount necessary. After a full review of the facts, if the co-ordinator finds it necessary, such permission shall be granted.

Celluloid Is Used to Combat Corrosion

(Continued from Page 13)

been displaced with another which facilitates the work and insures a better lap wrap on the pipe. In the first method a 1½-inch strip was cut from the layers of material and used for sealing the butt joints, butt wrapping being used in that method. This narrow strip was placed over the joints and painted with the cement now used in painting the spiral joints together. Placing the strip over the joints was a slow process compared to the new process, and did not insure the continuous shield that the present method does.

This new type of covering can be applied over spot welds, as mentioned above, half soles, whole soles, collars and other raised places on a line.

NEWS FOR PETROLEUM REFINERS

Construction Started on New Naph-Sol Dubbs Unit

MUSKEGON, Mich., Mar. 11.—Foundations for the Naph-Sol Refining Co.'s new $200,000 Dubbs cracking unit at Muskegon, Mich., have been completed and equipment has started to arrive. George Shelton, of the Universal Oil Products, Chicago, is engineer in charge of construction working under the direction of F. J. Mack, traveling engineer for the same company. A force of about 35 carpenters, steam-fitters and laborers is now employed with a maximum of 70 to be employed during the next two months prior to anticipated completion on or about May 1.

In connection with the new plant about 75,000 bbls. of additional storage will be erected. The new cracking unit will have a capacity of about 1,200 bbls. of charging stock daily. Space for installation of another heater doubling the capacity of the cracking unit has been provided.

START NEW BULK PLANT

Grading of the 14-acre site for the new $175,000 storage plant and western Michigan distribution headquarters of the White Star division, Socony-Vacuum Oil Co., Inc., has been started under the direction of Hoyt Hollister, chief engineer. The plant is to be completed on or before May 1.

Contracts for erecting the first two spheroid tanks, one with a capacity of 80,000 bbls. and the other of 60,000 bbls., has been awarded to the Chicago Bridge & Iron Works. They will be the first spheroid, all-welded tanks ever erected in Michigan. Other contracts for laying a double 6-inch line a mile and a half to the Grand Trunk car ferry slip, for a wharf there and other construction were to be let this week.

INDIANA JOBBER MEETING

The spring convention of the Indiana Independent Petroleum Association, Inc., will be held April 10 and 11 at Hotel Severin, Indianapolis. The keynote of the convention will be salesmanship and merchandising, according to an announcement by G. W. Hofmayer, secretary.

At a directors' meeting it was decided to have two conventions each year, but that exhibit space would only be available once a year. In order to ascertain whether the suppliers and refiners would be given an opportunity to display their wares in the spring or fall questionnaires were prepared and mailed and preference was expressed by the majority for exhibits at the spring convention.

HICKOK EXPANSION PLANS

TOLEDO, Ohio, Mar. 11.—The Hickok Oil Co., with headquarters in this city, has plans under way for a $1,000,000 expansion program to be undertaken this year. Plans provide for immediate construction of a group of filling stations in Youngstown and Mahoning County, to cost $150,000. The company has already awarded contracts for erection of a group of service stations and other buildings at various locations in Columbiana County, to cost $70,000.

HOLD SERVICE MEETING

Socony-Vacuum Oil Corp., Inc. held its annual service clinic for Chicago region dealers at the Congress Hotel, Chicago, under the supervision of W. J. Gerwe, Chicago manager. Modern lubrication needs of automotive vehicles was stressed. Appearing on the program as speakers were L. K. Marshall, general service manager, and C. F. Smart, chief metallurgist, Pontiac Motor Co.

Canada Losing Income as the Result of Higher Import Duties on Oil Products

OTTAWA, Canada, Mar. 9.—E. N. Rhodes, minister of finance in the federal government, has authorized the Dominion Tariff Board to investigate the workings of the existing customs tariff on gasoline. While the inquiry is to be wide open, the chief center of controversy is Item 271 which covers imports of gasoline.

Mr. Rhodes referred the gasoline tariff to the board for investigating following a request of January 9, 1935, from the acting registrar of the Co-operative Associations of Saskatchewan. The co-operative organizations of that province requested a downward revision of the customs duties on crude oil and its products, covered by Items 267 and 275. The chief complaint of the Saskatchewan co-operatives is that the Canadian refining companies "have increased to an unreasonable extent the spread in price between crude oil and refined petroleum products to the detriment of consumers."

In May, 1930, under the then low-tariff government, the duty on coal oil, kerosene and refined petroleum from the United States was 2½ cents per gallon. Gasoline under .725 specific gravity was free and gasoline .725 to .770 specific gravity ran from one-half cent to 1 cent per gallon, according to whether it ranked for British preferential, intermediate or general rate.

In September, 1930, the Bennett government, in the course of a general upward revision of the tariff eliminated the third of these items and merged the other two into one. Under this revision, "distilled, refined and purified petroleum oils, coal and kerosene, gasoline, etc.," lighter than .8235 specific gravity, were 2 cents, British preferential, 2¼ cents intermediate and 2½ cents general tariff, the latter covering imports from the United States.

In addition to these tariff increases in September, 1930, the government also imposed special dumping duties from time to time under Section 36, Subsection 2 of the customs act. These duties were cancelled about October, 1933, since which time the straight tariff has applied.

Since 1930, the imports of gasoline have gradually decreased as follows:

Year—	Gallons
1930	169,598,566
1931	120,168,059
1932	84,621,872
1933	67,621,872
1934	15,108,093

The normal annual gasoline consumption in Canada is around 550,000,000 gallons. Since 1930 several large refineries have been built by the major refining companies at important strategic points as well as a considerable number of small refineries by independent companies.

It is contended that the tariff, while greatly increasing the share of the domestic market served by the Canadian refining companies, has not injured the consumers in any particular. Current Canadian retail prices for gasoline are around 25 cents an imperial gallon. This includes the provincial tax, 6 cents in most provinces with some 7 or 8 cents. It is claimed that to import gasoline in tank car lots, duty free, would cost from 10 cents to 12 cents a gallon; leaving from 7 to 9 cents for distribution costs, local freight charges and marketing profit.

The tariff board's investigation into the gasoline tariff will open at Regina, Saskatchewan, on March 25, with Chairman George H. Sedgewick presiding. R. T. Graham, K.C., of Swift Current, has been retained by the Saskatchewan provisional government to present the case for the consumers. It is expected that the board will visit other centers, taking evidence and surveying conditions; and it is regarded as improbable that its report will be presented to parliament until the 1936 session. In the meantime the gasoline schedule will remain as it is, subject to possible alterations should the 1935 general elections result in a change of government.

REFINERY BENEFIT FUND

COUTTS, Alberta, Mar. 9.—The British-American Oil Co. has established a benefit fund for employes of its refining plant here, a reserve of one-half of 1 per cent of the men's pay being supplemented by the company. The fund is available in cases of illness and for other purposes.

A joint committee, consisting of three representatives from the company executive and three from the employes, has been appointed to arbitrate in matters involving conditions of work and other questions between employes and management. The employes' representatives are Frank Neden, Gordon Berry and Robert Small, representing the different operating departments of the plant. M. S. Berringer, plant superintendent, will head the committee from the management.

SOCONY-VACUUM PURCHASE

NEW YORK, Mar. 11.—The Socony-Vacuum Oil Co., Inc., has sold a large water terminal on the East River to the Insular Terminal Corp. The property has a 250-foot frontage on the river and extends along the Standard canal for 620 feet. The terminal facilities include a warehouse building and 2,000,000-gallon storage tanks. The insular corporation has operated the property under lease over the past year.

Suspend Most of 5-Cent Louisiana Refinery Tax

BATON ROUGE, Mar. 11.—Acting under authority of a resolution passed late last week by the Louisiana legislature, Governor Allen at Baton Rouge has issued a proclamation suspending collection of 4 cents of the 5 cents a barrel refinery processing tax until August 8.

The Louisiana legislature adopted a resolution permitting suspension of the process tax following Senator Huey Long's reported agreement with Standard Oil Co. of Louisiana for the concern to use more crude produced within the state in its operations.

MORE WATER TRANSPORTATION

Opening of the Great Lakes shipping season around April 15 this year is expected to be the signal for a considerable increase in water-borne traffic in gasoline and other petroleum products in 1935, compared with 1934 and earlier years. Various oil companies are completing arrangements for increased utilization of the lakes this year. The season is expected to open about two weeks earlier than last year because of the existence of less ice in the straits than in 1934.

Penn Grade Association to Open European Office

An office of the Pennsylvania Grade Crude Oil Association will be established in Europe within the next few weeks for the purpose of carrying on activities of the organization on the same basis as now exists in the United States. Policing to safeguard the association emblem, prosecution of cases in court where necessary, and a general supervision of the business will be under direction of Sam A. Hartwell, Jr., as manager. Mr. Hartwell is at present manager of the field service division with headquarters in Oil City, Pa. He plans to sail April 10.

This move was approved by the board of directors following the recommendation of a committee of association members, all of which are engaged in export business. Permanent location of the office will be announced after Mr. Hartwell makes a survey of the entire territory. Paris will probably serve as temporary headquarters. At present Mr. Hartwell is visiting offices of the export members in this country in preparation for his new duties. Hamilton W. Smith, assistant secretary in charge of Pacific Coast operations, will replace Mr. Hartwell in the home office.

MOVE OIL REFINERY

REGINA, Saskatchewan, Mar. 9.—The Great West Refining Co., recently organized here, has purchased an oil refinery at Collins, Mont., and will move the plant to Yorkton, Saskatchewan. The plant, originally built to handle crude from the Bannatyne Field, has a rated capacity of 500 bbls. a day, which will be increased to 1,000 bbls. by the addition of stills and towers. Originally it cost around $100,000. The Great West Refining Co. is capitalized at $300,000 and has bought a 31-acre site at Yorkton. Transfer of the plant will commence at once. It will operate on Cut Bank and Kevin-Sunburst crude. The Great West company is headed by W. D. Craig, who was connected with the Queen City Oil Co. which operated some years ago in the Montana fields. P. M. Withers is vice president and will have charge of the Yorkton plant. Other officers are: Secretary, W. M. Fuller, Regina; directors, Jacob Kalmkoff, Makrock; F. O. Wright, Orran.

NEW REFINERY PROJECT

BURNABY, British Columbia, Mar. 9. Dent, Ltd., has been incorporated by Vancouver capital and has purchased a 40-acre site here with water frontage on Burrard Inlet. A $250,000 petroleum refining plant will be erected, construction to commence by September 1.

START MARKETING COMPANY

Fred A. Schaefer, for the past eight years associated with Shell Petroleum Corp., in both wholesale and retail departments, has resigned, and plans to establish a carlot oil marketing business of his own in Chicago.

PRICE WAR LITIGATION

LOS ANGELES, Calif., Mar. 9.—Litigation designed to halt gasoline "price wars" in southern California was started here with the filing in Superior Court by the Edington Oil & Refining Co., Ltd., of a petition for an injunction to restrain three other concerns from allowing "secret rebates" in the sale of gasoline.

EXPAND WAINWRIGHT PLANT

WAINWRIGHT, Alberta, Mar. 9.—Additional tanks have been built at the refining plant of Gold Standard Oils, Ltd., here.

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasolines

	Mar. 12		Mar. 5	
OKLAHOMA (Group 3)—				
U. S. Motor grades:				
Below 63 octane	.03⅞	.04	.03½	.03⅝
63-70 octane	.04⅞	.04⅞	.04⅝	.04¾
60-62 400 grade:				
Below 63 octane	.03⅞	.04⅛	.03½	.03¾
63-70 octane	.04⅝	.04⅞	.04⅝	.04½
64-66 375	.04⅛	.04¼	.03⅞	.04
68-70 360	.04¼	.04⅜	.04⅛	.04¼
NORTH TEXAS—				
U. S. Motor grades:				
Below 63 octane	.03⅞	.04	.03½	.03⅝
63-70 octane	.04⅝	.04⅞	.04⅝	.04¾
60-62 400	.04	.04⅛	.03½	.03¾
64-66 375	.04⅛	.04¼	.03⅞	.04
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.04½		.04½	
63-70 octane	.05⅝		.05⅝	
60-62 400	.04½		.04½	
ARKANSAS (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.04½		.04½	
63-70 octane	.05⅝		.05⅝	
CHICAGO (based on Oklahoma Group 3)—				
U. S. Motor grades:				
Below 62 octane	.03¾	.04	.03⅝	.03½
63-70 octane	.04⅝	.04⅞	.04¼	.04¾
60-62 400	.03¾	.04	.03⅝	.03½
64-66 375	.03⅞	.04⅛	.03¾	.04
68-70 360	.04	.04¼	.04	.04⅛
Aviation fighting grade	.04¾	.05	.04¾	.05
PENNSYLVANIA (inland refineries)—				
58-60 U. S. Motor:				
Below 60 octane	.04½		.04½	
60-64.9	.05⅝		.05⅝	
65-70 octane	.06		.06	
68-70 350	.05⅝		.05½	
CALIFORNIA (domestic movement)—				
54-58 U. S. Motor	.07	.08	.07	.08
58-60 400	.08	.09	.08	.09
EAST COAST—				
U. S. Motor, below 60 octane:				
*New York	.05¼	.05½	.05¼	.05½
Baltimore	.05¾		.05¾	
U. S. Motor, 60-64 octane:				
*New York (Bayonne)	.05½	.05¾	.05½	.05¾
Philadelphia	.05¾	.06	.05¾	.06
Boston	.05¾	.06	.05¾	.06
Baltimore	.05¾	.06	.05¾	.06
Charleston, S. C.	.05¾	.06	.05¾	.06
U. S. Motor, 65 and above:				
*New York	.05¾	.06	.05¾	.06
Philadelphia	.06	.06¼	.06	.06¼
Boston	.06	.06¼	.06	.06¼
Baltimore	.06	.06¼	.06	.06¼
Charleston, S. C.	.06	.06¼	.06	.06¼
GULF COAST (domestic)—				
U. S. Motor:				
Below 60 octane	.05	.05⅛	.04¾	.05
60-64.9 octane	.05¼		.05	.05¼
65 octane and higher	.05¼	.05½	.05¼	

*All grades of gasoline one-fourth cent less for small barge shipments.

Naphthas

	Mar. 12		Mar. 5	
PENNSYLVANIA (inland refineries)—				
50-52 (blending)	.04	.04¼	.04	.04¼
52-54 450 (blending)	.04	.04¼	.04	.04¼
54-56 450 (blending)	.04	.04¼	.04	.04¼
50-52 450 (blending)	.04	.04¼	.04	.04¼
CHICAGO (based on Oklahoma Group 3)—				
50-52 450 (blending)	.03½	.03¾	.03¼	.03¾
Cleaners' naphtha, 56-58 gr., 200 i.b.p., 320 e.p.	.06¾	.07	.06¾	.07
Lacquer diluent, 180 i.b.p., 250 e.p.	.07¾	.08	.07¾	.08
Lacquer diluent, 140 i.b.p., 200 e.p.	.08¾	.09	.08¾	.09
Rubber solvent, 68-70 gr., 100 i.b.p., 300 e.p.	.06¾	.07	.06¾	.07
Stoddard solvent, 300 i.b.p., 410 e.p., over 83° flash	.06¼	.06½	.06¼	.06½
Pet. thinner, 290-300 i.b.p., 415 e.p., over 83° flash	.06¼	.06½	.06¼	.06½
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p., 330 e.p.	.06¾	.07	.06¾	.07
Petroleum spirits	.05¾	.06	.05¾	.06

Natural Gasolines

	Mar. 12		Mar. 5	
OKLAHOMA (Group 3)—				
Grade 26-70	.02	.02¼	.02⅛	.02¼
Grade 18-55	.02¾	.02⅞	.02¾	.02⅞
Low vapor pressure grades:				
14 lb. v.p. (max.)	.03⅛	.03¼	.03⅛	.03¼
12 lb. v.p. (max.)	.03¾	.04	.03½	.03¾
NORTH TEXAS—				
Grade 26-70	.02	.02¼	.02	.02¼
Grade 18-55	.02⅝	.02¾	.02⅝	.02¾
Low vapor pressure grades:				
14 lb. v.p. (max.)	.03	.03¼	.02⅞	.03
12 lb. v.p. (max.)	.03⅝	.03¾	.03⅜	.03⅝
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
Grade 26-70	.02⅝		.02½	
CALIFORNIA—				
75-85 375	.05	.06	.05¼	.06

Kerosenes

(All kerosenes water white)

	Mar. 12		Mar. 5	
OKLAHOMA (Group 3)—				
41-43	.03½	.03⅝	.03½	.03⅝
42-44	.03⅝	.03¾	.03⅝	.03¾
NORTH TEXAS—				
40-41	.03¼	.03⅜	.03¼	.03⅜
41-43	.03½	.03⅝	.03½	.03⅝
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
41-43	.03¾		.03¾	
ARKANSAS (Ark., N. La. & Miss. del.)—				
41-43	.03¾		.03¾	
PENNSYLVANIA (inland refineries)—				
45	.04¾	.04⅞	.04⅜	.04⅞
46	.04⅞	.05	.04⅞	.05
47	.05	.05⅛	.05	.05⅛
CHICAGO (based on Oklahoma Group 3)—				
41-43	.03½	.03⅝	.03½	.03⅝
42-44	.03⅝	.03¾	.03⅝	.03¾
CALIFORNIA (Pacific Coast consumption)—				
38-40 high burning test	.04½	.05	.04½	.05
NEW YORK (Bayonne, N. J.)—				
41-43	.05½		.06	
GULF COAST (domestic)—				
41-43	.04½	.04¾	.04¾	.05

Petroleum Coke

(Prices per ton f.o.b. refineries in Chicago area)
(Refineries will absorb freight to 80 cents a ton)

	Mar. 12	Mar. 5
Pile run	6.00	6.00
Direct from still	7.00	7.00
Egg, nut, pea	8.50	8.50
Lump	8.50	8.50

Furnace Oils and Tractor Fuels

(Zero cold test under 190° flash and good odor)

	Mar. 12		Mar. 5	
OKLAHOMA (Group 3)—				
32-36 straw	.02⅞	.03	.02⅞	.03
36-38 straw	.03	.03⅛	.03	.03⅛
38-40 straw	.03	.03⅛	.03	.03⅛
38-40 prime white	.03⅛	.03¼	.03⅛	.03¼
NORTH TEXAS—				
38-40 straw	.03⅛	.03¼	.03⅛	.03¼
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
36-40 furnace oil	.02⅞	.03	.02⅞	.03
ARKANSAS (Ark., N. La. & Miss. del.)—				
32-36 furnace oil	.02⅞	.03	.02⅞	.03
CHICAGO (based on Oklahoma Group 3)—				
32-36 straw	.02⅞	.03	.02⅞	.03
38-40 straw	.02⅞	.03⅛	.02⅞	.03⅛
38-40 prime white	.03	.03¼	.03	.03⅛
NEW YORK (Bayonne, N. J.)—				
No. 1	.05½		.05¾	.06
No. 2	.04½		.04½	
No. 4	.04½		.04½	

Gas Oil, Diesel Oil and Fuel Oil

(Gas oil per gal., Diesel and fuel oils per bbl.)

	Mar. 12		Mar. 5	
OKLAHOMA (Group 3)—				
32-36 gas oil, cracking stock	.02	.02¼	.02	.02⅛
U.G.I. gas oil	.02⅛	.02¼	.02	.02⅛
32-36, zero to 15 gas oil	.02¾	.02⅞	.02¾	.02⅞
28-30, No. 3 burner oil	1.05	1.10	1.05	1.10
26-30, zero to 10 fuel oil	.95	1.00	.95	1.00
24-26 fuel oil	.75	.77½	.75	.77½
20-22 fuel oil	.70	.75	.70	.75
Below 16 fuel oil	.60	.62½	.60	.62½
NORTH TEXAS—				
32-36 gas oil, industrial	.02¼	.02⅜	.02⅛	.02¼
22-26 fuel oil	.65	.67½	.65	.67½
Below 20 fuel oil	.60	.62½	.60	.62½
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
30-32 gas oil, zero	.03	.03⅛	.03	.03⅛
14-16 fuel oil	.70	.75	.70	.75
ARKANSAS (Ark., N. La. & Miss. del.)—				
30-32 gas oil, zero	.03	.03⅛	.03	.03⅛
32-36 gas oil	.02⅞	.03	.02⅞	.03
14-16 fuel oil	.65	.70	.65	.70
CHICAGO (based on Oklahoma Group 3)—				
32-36 gas oil, industrial	.02	.02⅛	.02	.02⅛
28-30 zero to 10, fuel oil	1.05	1.10	1.05	1.10
26-28 zero to 10 fuel oil	.95	1.00	.95	1.00
22-26 zero to 10, fuel oil	.82½	.87½	.82½	.87½
18-22 zero to 10, fuel oil	.67½	.72½	.67½	.72½
Below 18 fuel oil	.57½	.62½	.57½	.62½

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel in all these areas.

PENNSYLVANIA (inland refineries)—				
30-40	.04	.04½	.03⅞	.04
CALIFORNIA—				
Los Angeles:				
30-34 gas oil, per bbl.	1.10	1.26	1.10	1.26
27 plus Diesel	1.10	1.15	1.10	1.15
27 plus Diesel (bunkers)	1.13	1.20	1.13	1.20
12-16 (bunkers at tidewater)	.82½	.85	.82½	.85
10-16 (cargo lots)	.70	.75	.70	.75
12-17 (tank cars)	.62½	.80	.62½	.80
San Joaquin Valley:				
10-18 (tank cars)	.60	.70	.60	.70
San Francisco:				
27 plus Diesel, per bbl.	1.15	1.20	1.15	1.20
27 plus Diesel (bunkers)	1.19		1.19	
10-16 (bunkers)	.90		.90	
GULF COAST—				
28-30 gas oil	.03½	.03⅝	.03½	.03⅝
28-30 Diesel (bunkers)	1.70		1.70	
Bunker C (bulk cargoes)	.85	.90	.85	.90
Bunker C (bunkers)	.95	1.00	.95	1.00
NEW YORK (Bayonne, N. J.)—				
27 plus, gas oil	.04½		.04½	
28-30 Diesel (lighterage 6½ cents per bbl.)	1.89		1.89	
28-30 Diesel (tank cars)	.04½		.04½	
*Bunker C (to ocean-going ships in N. Y. harbor)	1.15		1.15	
Industrial fuel (tank cars)	.04		.04	

*Lighterage charge 5 cents per barrel additional.

Neutral Oils

(Vis. at 100° F. except Pennsylvania, and color N.P.A.)

	Mar. 12		Mar. 5	
OKLAHOMA (Group 3)—				
Zero to 10 Cold Test:				
150-3	.10		.10	
180-3	.11¼		.11¼	
180-4	.10¾		.10¾	
200-3	.11¾		.11¾	
200-4	.11¼		.11¼	
240-3	.13¾		.13¾	
240-4	.13¼		.13¼	
280-3	.14¾		.14¾	
280-4	.14		.14	
300-3½	.15¼		.15¼	
400-4	.17¼		.17¼	
100-2 paraffin oil	.05¾		.05¾	
15-20 Cold Test:				
200-3	.10¾		.10¾	
200-4	.10¼		.10¼	
240-3	.12¾		.12¾	
240-4	.12¼		.12¼	
280-3	.13¾		.13¾	
280-4	.13		.13	
GULF COAST—				
Pale Oils:				
200-3	.07	.07½	.07	.07½
300-3	.07½	.08	.07½	.08
500-3½	.08½	.09	.08½	.09
750-3½	.09	.09¼	.09	.09¼
1,200-3½	.09½	.09¾	.09½	.09¾
2,000-4	.09¾	.10	.09¾	.10
Red Oils:				
200-5-6	.07	.07¼	.07	.07¼
300-5-6	.07¼	.07½	.07¼	.07½
500-5-6	.08	.08½	.08	.08½
750	.08½	.09	.08½	.09
1,200-5-6	.09¼	.09½	.09¼	.09½
CALIFORNIA (moving to domestic market)—				
Pale Oils:				
100-2½-3	.12½	.14½	.12½	.14½
200-2½-3	.12½	.14½	.12½	.14½
300-3-3½	.12½	.14½	.12½	.14½
350-3-4	.12½	.14½	.12½	.14½
400-3-4	.12½	.14½	.12½	.14½
450-3-4	.12½	.14½	.12½	.14½
550-3-4	.12½	.14½	.12½	.14½
600-3-4	.12½	.14½	.12½	.14½
Red Oils:				
200-4-5	.12½	.14½	.12½	.14½
300-5-6	.12½	.14½	.12½	.14½
350-5-6	.12½	.14½	.12½	.14½
400-5-6	.12½	.14½	.12½	.14½

450-5-6	.12½	.14½	.12½	.14½
500-5-6	.12½	.14½	.12½	.14½
600-5-6½	.12½	.14½	.12½	.14½
700-6½ plus	.12½	.14½	.12½	.14½
750-6½ plus	.12½	.14½	.12½	.14½
900-6½ plus	.12½	.14½	.12½	.14½
PENNSYLVANIA—				
150 vis. at 70° F., 3 color, 400-405 flash:				
Zero pour test	.23½	.24	.23½	.24
10 pour test	.22½	.23	.22½	.23
15 pour test	.22	.22½	.22	.22½
25 pour test	.21	.21½	.21	.21½
180 vis. at 70° F., 3 color:				
25 pour test	.23½	.24	.23½	.24
200 vis. at 70° F., 3 color:				
Zero pour test	.28½	.29	.28½	.29
10 pour test	.27½	.28	.27½	.28
15 pour test	.27	.27½	.27	.27½
25 pour test	.26	.26½	.26	.26½

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	Mar. 12	Mar. 5
Bright stocks:		
190-200 D	.17	.17
150-160 D, 0-10	.14	.14
150-160 D, 10-25	.13½	.13½
150-160 24-40	.13	.13
150-160 E	.13	.13
Steam refined:		
630 light green (treated)	.07½ .08	.07½ .08
600 light green (untreated)	.06 .08	.06 .08
600 dark green (untreated)	.04½ .07	.04½ .07
PENNSYLVANIA—		
Bright Stocks (Pennsylvania grade, No. 8 color, 145-50 at 210; 540-550 flash):		
10 pour test	.18½ .19	.18½ .19
15 pour test	.17½ .18	.17½ .18
20 pour test	.16½ .17	.16½ .17
25 pour test	.15½ .16	.15½ .16
Steam refined:		
600	.08 .09	.08½ .09½
650	.10 .11	.10½ .11½
600 Pennsylvania flash	.11 .12	.11½ .12½
630 flash	.16 .17	.16½ .17½
600 Warren E filtered	.12 .13	.12½ .13½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—	Mar. 12	Mar. 5
124-126 white crude scale	.02½ .02¾	.02½ .02¾
PENNSYLVANIA—		
122-124	.0225	.0260 .0265
124-126	.0230	.0260 .0265
NEW YORK—		
Wax (a.m.p.) in bags fully refined:		
120-122	.0420 .0430	.0420 .0430
123-125	.0440 .0460	.0440 .0460
125-127	.0445 .0470	.0445 .0470
130-132	.05 .0510	.05 .0510
133-135	.0545 .0570	.0545 .0570
135-137	.0570 .0595	.0570 .0595
124-126 crude scale	.0225 .0235	.025 .0275
Petrolatum in barrels in carload lots:		
Dark green	.01⅞	.01⅞
Amber	.02⅞ .03	.02⅞ .03
Extra amber	.03 .03⅛	.03 .03⅛
Lily white	.06⅝ .06¾	.06⅝ .06¾
Snow white	.07¾ .07⅞	.07¾ .07⅞
Cream	.05⅝ .05¾	.05⅝ .05¾
CHICAGO (f.o.b. switching district)*—		
122-124 wax	.0440 .0450	.0490 .0500
125-127 wax	.0465 .0475	.0515 .0525
127-129 wax	.0480 .0490	.0530 .0540
130-132 wax	.0540 .0550	.0590 .0600
132-134 wax	.0565 .0575	.0615 .0625

*Cents per pound on carlot orders in burlap bags of 225 lbs. approx. Add 3° F. a.m.p.

Export Prices

GASOLINE

GULF COAST—	Mar. 12	Mar. 5
U. S. Motor	.04¼	.04¼
60-62 400	.04⅜	.04⅜
61-63 390	.04½	.04½
64-66 375	.04⅝ .04¾	.04¾
LOS ANGELES, CALIF.—		
U. S. Motor grades:		
53-55 octane	.04 .04¼	.04 .04¼
55-65 octane	.04¼	.04¼
65-67 octane	.04¼ .04½	.04¼ .04½
67-69 octane	.04½ .04¾	.04½ .04¾
Above 69 octane	.04¾ .05¼	.04¾ .05¼
58-60 400 endpoint	.04½ .05	.04½ .05
KEROSENE		
GULF COAST—		
41-43 prime white	.04½ .04⅝	.04⅝ .04¾
41-43 water white	.04⅝ .04¾	.04¾ .04⅞
44 water white	.04⅞ .05	.05 .05⅛
LOS ANGELES, CALIF.—		
41-43 water white	.04¼ .04¾	.04¼ .04¾
LUBRICANTS		
NEW YORK (f.a.s. in bbls.)—		
Cylinder Stocks:		
600 Warren E	.18½ .19	.19 .19½
600 S.R. unfiltered	.14 .14½	.14½ .15
650 S.R. unfiltered	.16 .16½	.16½ .17
600 flash S.R.	.17 .17½	.17½ .18
630 flash S.R.	.20½ .21	.21½ .22
Bright Stocks:		
8 color	.22 .23	.22½ .23
6½ plus colors in dilution	.20½ .21	.21 .21½
NEUTRAL OILS		
200-3 color	.32 .34	.34 .35
150-3 color	.27 .28	.28 .29
NEW YORK (prices per pound):		
120-122 a.m.p.	.0405 .0425	.0405 .0425
123-125 a.m.p.	.0435 .0455	.0435 .0455
125-127 a.m.p.	.0440 .0465	.0440 .0465
128-130 a.m.p.	.04¾ .0490	.04¾ .0490
130-132 a.m.p.	.0495 .0505	.0495 .0505
133-135 a.m.p.	.0540 .0565	.0540 .0565
135-137 a.m.p.	.0565 .0590	.0565 .0590

Crude Oil Gravity Table

Gravity—	1 Oklahoma and Kansas	2 North Texas, Central Texas and East Central Texas	3 North Louisiana and Arkansas	4 Gray County, Texas	5 Carson, Hutchinson and Moore Counties, Texas	6 Conroe, Texas	7 Salt Creek, Wyo.	8 Gulf Coast, Texas and Louisiana	9 Gulf Coast, Texas and Louisiana	10 Cotton Valley, Louisiana
Below 20	....	....	....	....	....	....	....	$.82	$.82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$.76	....	....	....	....	....	....	....	....	$.70
25-25.9	*.78	....	....	....	....	....	....	.94	.94	.72
26-26.9	*.80	....	....	....	....	....	....	.96	.96	.74
27-27.9	*.82	....	....	....	....	....	....	.98	.98	.76
28-28.9	*.84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$.79	$.79	....	....	....	$.84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.05	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.06	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.12	1.08	.90
Below 35	....	....	....	$.79	$.69	....	....	....	....	....
35-35.9	.98	.93	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1.00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1.02	.97	.97	.85	.75	1.13	1.02	1.12	1.11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1.06	1.01	1.01	.89	.79	1.17	1.06	1.12	1.13	1.00
40 and over	1.08	1.03	1.03	.91	.81	1.19	1.08	1.12	1.14	1.02

Effective December 3, 1934, Panhandle Refining Co., purchasing oil in North Texas, posted below 29 degrees, 68 cents; 29-29.9 degrees, 70 cents, with 2 cents added for each additional degree up to 40 and over, at 92 cents.

*The following companies purchasing crude oil in Kansas or Oklahoma, or both, begin their price schedule: Below 25°, 76 cents; 25-25.9°, 78 cents, with 2 cents added for each degree upward to 40 and over at $1.08; Carter Oil Co., Magnolia Petroleum Co., Pure Oil Co., Rock Island Refining Co., Shell Petroleum Corp., Sinclair Prairie Oil Marketing Co., Skelly Oil Co., and Wilcox Oil & Gas Co. All others begin their schedules at below 29°, 84 cents, excepting Philtex Oil Co., which begins with below 31° at 88 cents.

Column 1—Effective September 29, 1933, Texas Co. of Oklahoma; Stanolind Crude Oil Purchasing Co. in Kansas and Oklahoma; Anderson & Prichard, Inc., in Oklahoma; Bell Oil & Gas Co. in Oklahoma; Carter Oil Co. in Oklahoma and Kansas; Deep Rock Oil Co. in Oklahoma; Derby Oil Co. in Kansas; Globe Refining Co. in Oklahoma; Golden Rule Refining Co. in Kansas; Gypsy Oil Co. in Oklahoma and Kansas; Kanotex Refining Co. in Kansas; Magnolia Petroleum Co. in Oklahoma; Mid-Continent Petroleum Corp. in Oklahoma; National Refining Co. in Kansas and Oklahoma; Shell Petroleum Corp. in Kansas and Oklahoma; Sinclair Prairie Oil Marketing Co. in Kansas and Oklahoma; Texas Co. in Oklahoma; Tide Water Oil Co. in Oklahoma; Vickers Refining Co. in Kansas; Continental Oil Co. in Kansas and Oklahoma; Empire Pipe Line Co. in Oklahoma and Kansas; Philtex Oil Co. in Kansas and Oklahoma; Pure Oil Co. in Oklahoma; Skelly Oil Co. in Kansas. Effective September 29, by White Eagle Oil Corp. in Kansas; October 1, by Barnsdall Refineries, Inc., in Oklahoma.

Column 2—Effective September 29, 1933, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Sinclair Prairie Oil Marketing Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Bell Oil & Gas Co., Continental Oil Co. Effective January 14, 1935, in the Van Pool, Van Zandt County, Pure Oil Co. posted below 29°, 79 cents, with 2 cents added for each degree up to 40 and over at $1.03.

Column 3—Effective September 29, 1933, by Texas Co., Magnolia Petroleum Co., Gulf Refining Co. Effective December 22, Stanolind Oil & Gas Co. in Pine Island, Louisiana, and Marion County, Texas, posted below 29°, 79 cents, with 2 cents added for each degree up to 40 and over at $1.03. Effective March 17, 1934, by Standard Oil Co. of Louisiana and Louisiana Oil Refining Co. Starting with below 25°, 71 cents, adding 2 cents for each degree upward to 40 and over at $1.03.

Column 4—Effective September 29, 1933, by Texas Co., Humble Oil & Refining Co., Magnolia Petroleum Co., Sinclair Prairie Oil Marketing Co., and H. F. Wilcox Oil & Gas Co. On same day, Philtex Oil Co. posted below 31°, 71 cents, with 2 cents added for each degree up to 40 and over at 91 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 5—Effective September 29, 1933, by Texas Co., Humble Oil & Refining Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Wilcox Oil & Gas Co., Continental Oil Co. On same day, Philtex Oil Co. posted below 31°, 61 cents, with 2 cents added for each degree upward to 40 and over at 81 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 6—Effective September 29, 1933, by Humble Oil & Refining Co. and Tide Water Oil Co., and on September 30 by Texas Co., which on September 29 had posted a schedule of $1.07 to $1.12 with a 1-cent spread on each degree.

Column 7—Effective September 29, 1933, by Stanolind Oil & Gas Co.

Column 8—Effective September 29, 1933, by Humble Oil & Refining Co., Gulf Pipe Line Co., Shell Petroleum Corp., Pure Oil Co., Sinclair Prairie Oil Marketing Co. On October 2, Magnolia Petroleum Co. posted Lockport, Louisiana, 20-20.9°, 84 cents, with 2 cents added for each degree upward to 34 and over at $1.12; and in Cameron Meadows and Iowa, Louisiana, below 20°, 72 cents, with 2 cents added for each degree up to 34 and over at $1.02. These prices were 2 cents higher on each degree than Magnolia prices posted on September 29. Effective September 29, Shell Petroleum Corp. posted in Iowa, Louisiana, district: Below 20°, 70 cents, with 2 cents added for each degree upward to 34° and over at $1; and in Black Bayou and White Castle, Louisiana: Below 20°, 80 cents, with 2 cents added for each degree upward to 34° and over at $1.10.

Column 9—Effective September 30, 1933, Texas Co. (On September 29 Texas Co. has posted a schedule of 2 cents on each degree, but changed it on September 30.)

Column 10—Effective September 29, 1933, by Louisiana Oil Refining Co.

(California Crude Oil Prices on Page 37)

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

East Texas $1.00
Corsicana (heavy) (June 17, 1933)* ..... .80
Other fields ..... (See gravity table)

Note—In East Texas, effective September 29, 1933, by Texas Co., Sanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Shell Petroleum Corp., Gulf Pipe Line Co., Tide Water Oil Co., Sinclair Prairie Oil Marketing Co., Magnolia Petroleum Co., Sun Oil Co., Panola Pipe Line Co., Empire Oil & Refining Co., and Atlas Pipe Line Co. posted 60 cents per barrel in East Texas but on November 3 resumed its posted price of $1 per barrel, making it retroactive to October 22.

*Magnolia Petroleum Co.

West Texas

Crane, Upton, Crockett, Howard, Glasscock, Mitchell (Sept. 29, 1933) ..... $ .70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933) ..... .74
Pecos County, Yates shallow Pool (Sept. 29, 1933)* ..... .81
Jones and Fisher Counties*. See gravity table

Note—Effective September 29, 1933, by Humble Oil & Refining Co., Texas Co., Gulf Pipe Line Co., Shell Petroleum Corp., Magnolia Petroleum Co., and by Stanolind Oil & Gas Co. in Winkler County, Texas.

*Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers.
..... (See gravity table)
Tomball (see note)* $1.15
Livingston (Sept. 29, 1933)† 1.00
Cleveland (Jan. 11, 1934) 1.00
Greta (Sept. 29, 1933) ..... .85
Refugio, light ..... (See gravity table)
Refugio, heavy (Sept. 29, 1933)‡ ..... .85
Markham and High Island ..... (See Gulf Coast gravity table)
Conroe ..... (See Conroe gravity table)
Bosco, La. (Jan. 18, 1935)§ ..... $.92

Note—Tomball, effective September 29, by Humble Oil & Refining Co. and October 3 by Magnolia Petroleum Co., and November 10 by Stanolind Crude Oil Purchasing Co.

*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy by Humble Oil & Refining Co. Cleveland (Liberty County) posted by Magnolia Petroleum Co. §Bosco posted by Pure Oil Co.

South Central and Southwest Texas

(See note below table)

Darst Creek ..... $.87
Mirando ..... .80
Luling (Sept. 29, 1933) ..... .75
Pettus 1.05
Salt Flat ..... .87
Lytton Springs (Sept. 29, 1933) ..... .95
Duval County (Sept. 29, 1933) ..... .80
Saxet ..... .85

Note—Effective on September 29 by Humble Oil & Refining Co. in Darst Creek, Mirando, Pettus, Salt Flat and Saxet. Effective September 29 in Darst Creek by Gulf Pipe Line Co. and Texas Co. Effective October 2 by Magnolia Petroleum Co. Effective in Pettus and Salt Flat on September 29 by Humble Oil & Refining Co. and Gulf Pipe Line Co. Luling and Lytton Springs by Magnolia Petroleum Co. Duval County by Texas Co. Saxet, effective September 29, by

(Continued on Page 37)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

March 12, 1935

Taxes

The gasoline quotations given in the following tables include the 1-cent Federal tax, as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon or 3 cents a gallon off retail prices is permitted for purchases running between 4,000 and 10,000 gallons a month, or 4 cents a gallon off retail prices for purchase in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Denver, Colo.	18.0	20.0	5.0	13.0
Pueblo	17.0	19.0	5.0	13.0
Grand Junction	18.5	20.5	5.0	15.0
Casper, Wyo.	18.0	20.0	5.0	11.5
Cheyenne	18.0	20.0	5.0	13.0
Butte, Mont.	21.0	23.0	6.0	17.5
Billings	22.0	24.0	6.0	16.5
Helena	23.0	25.0	6.0	17.5
Great Falls	21.5	23.5	6.0	17.5
Salt Lake, Utah	17.0	19.0	5.0	16.0
Boise, Idaho	22.5	24.5	6.0	18.0
Twin Falls	22.5	24.5	6.0	18.0
Albu'que, N. M.	18.0	20.0	*6.5	13.0

*One-half cent city tax.

Effective March 1, 1934, discount to dealers with or without contract throughout Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Standard Oil Co. (Indiana)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Chicago	14.2	16.2	4.0	9.0
Decatur, Ill.	14.2	16.2	4.0	9.4
E. St. Louis	13.9	15.9	4.0	9.1
Joliet	14.3	15.8	4.0	9.5
Peoria	14.2	14.2	4.0	9.4
Quincy	14.1	16.1	4.0	9.3
Davenport, Ia.	14.2	16.2	4.0	9.4
Des Moines	14.1	16.1	4.0	9.3
Mason City	14.4	16.4	4.0	9.6
Sioux City	14.3	16.3	4.0	9.5
Duluth, Minn.	15.0	17.0	4.0	10.2
Mankato	14.7	16.7	4.0	9.9
Minneapolis	14.7	16.7	4.0	9.9
LaCrosse, Wis.	15.7	17.7	4.0	9.9
Green Bay	15.9	17.9	5.0	10.1
Milwaukee	15.8	17.8	5.0	9.7
Madison	16.0	18.0	5.0	9.9
Detroit, Mich.	15.0	17.0	4.0	9.0
Grand Rapids	14.9	16.9	4.0	10.8
Saginaw	15.2	17.2	4.0	11.1
Evansville, Ind.	16.0	17.8	5.0	10.0
Indianapolis	16.1	18.1	5.0	10.1
South Bend	16.4	18.4	5.0	10.4
Fargo, N. Dak.	15.7	17.7	4.0	10.9
Huron, S. Dak.	16.2	18.2	5.0	10.4
Sioux Falls	15.6	17.6	5.0	9.8
Kans. C., Mo.*	13.6	15.6	4.0	7.5
Springfield	13.3	14.5	4.0	7.0
St. Louis	13.9	15.9	3.5	7.5
St. Joseph*	13.6	15.6	4.0	8.8
Wichita, Kans.	13.2	15.2	4.0	6.0
Bartlesville, Ok.	16.8	18.0	5.0	8.5

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

Discounts to dealers: Undivided accounts, 3½ cents on premium and regular and 2½ cents on third grade off service station prices; divided accounts one-half cent less than undivided. Where prices are more than 1 cent below normal, the discounts are one-half cent less than above.

Stanolex Furnace Oil in Chicago

Effective Feb. 16, 1935, f.o.b. Chicago tank wagon prices: Range oil, less than 80 gallons, 8½ cents; 80-149 gallons, 7½ cents; 150 gallons and more, 7 cents. No. 1 (36-40 lt. stw. zero), less than 100 gallons, 8½ cents; 100-149 gallons, 7½ cents; 150 gallons or more, 7 cents; No. 2 (30-34, stw. zero), less than 150 gallons, 8 cents; No. 3 (32-36, zero), less than 150 gallons, 7 cents; No. 4 (12-16 zero), less than 400 gallons, 7 cents; viscosity of No. 4, 85 at 100° F.; No. 5, less than 400 gallons, 5½ cents. For deliveries of more than stated quantities of Nos. 2, 3, 4 and 5, deduct 1 cent.

(Note: Range oil not quoted by Standard; quotation on this product by Burning Oil Distributors Association.)

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Atlanta, Ga.	19.0	21.0	7.0	12.0
Augusta	19.0	21.0	7.0	15.0
Macon	19.0	21.0	7.0	15.0
Savannah	17.5	19.5	7.0	14.0
Birm'ham, Ala.	19.5	21.5	8.0	12.0
Mobile	18.5	20.5	8.0	11.0
Montgomery	20.5	22.5	8.0	15.5
Jackson, Miss.	18.5	20.5	7.0	13.0
Vicksburg	18.0	19.5	7.0	14.5
Jack'ville, Fla.	18.5	20.5	8.0	11.5
Miami	18.5	20.5	8.0	13.5
Pensacola	19.0	21.0	8.0	13.5
Tampa	18.5	20.5	8.0	12.5
Lexington, Ky.	17.0	19.0	6.0	11.5
Covington	14.5	15.5	6.0	12.5
Louisville	16.5	18.0	6.0	12.0
Paducah	16.5	18.5	6.0	11.0

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia and Mississippi include 1 cent state tax; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline; in Florida an inspection fee of one-eighth cent on kerosene and gasoline. To Pensacola, Mobile and Birmingham state taxes on gasoline add 1 cent city tax.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Dallas, Tex.	13.0	15.0	5.0	7.0
Fort Worth	13.0	15.0	5.0	7.0
Houston	14.0	16.0	5.0	7.0
San Antonio	16.0	18.0	6.0	7.0
El Paso	16.0	18.0	5.0	10.0
Muskogee, Ok.	16.0	18.0	5.0	7.5
Okla. City	16.0	18.0	5.0	7.5
Tulsa	16.0	18.0	5.0	7.5
Ft. Smith, Ark.	14.1	16.5	5.0	8.0
Little Rock	16.6	19.0	7.5	9.0
Texarkana	14.0	16.0	5.0	7.0

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Atl'tic City, N.J.	12.9	16.4	4.0	9.0
Newark	12.2	15.7	4.0	8.5
Annapolis, Md.	14.5	18.0	5.0	10.0
Baltimore	14.0	17.5	5.0	8.5
Cumberland	15.0	18.5	5.0	12.7
Wash'g'n, D. C.	12.0	15.5	3.0	9.5
Danville, Va.	16.5	20.0	6.0	12.9
Norfolk	15.0	18.5	6.0	11.3
Petersburg	15.5	19.0	6.0	11.4
Richmond	15.5	19.0	6.0	11.7
Roanoke	16.5	20.0	6.0	12.9
Charls'n, W.Va.	15.0	18.5	5.0	12.6
Parkersburg	14.5	18.0	5.0	11.2
Wheeling	15.0	18.5	5.0	12.2
Charlotte, N. C.	17.4	20.9	7.0	13.5
Hickory	17.5	21.0	7.0	13.7
Mt. Airy	17.5	21.0	7.0	13.8
Raleigh	17.2	20.7	7.0	13.3
Salisbury	17.5	21.0	7.0	13.6
Charleston, S.C.	15.2	18.7	7.0	11.3
Columbia	17.0	20.5	7.0	13.2
Spartanburg	15.5	18.0	7.0	13.5

Effective October 23, tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Omaha	16.6	18.6	5.0	10.0
McCook	17.3	19.3	5.0	10.7
Norfolk	17.0	19.0	5.0	10.4
North Platte	17.4	19.4	5.0	10.0
Scottsbluff	18.1	20.1	5.0	11.5

Note: Discounts to dealers; where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2½ cents; Standard Red Crown, 3½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal, resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Crown, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank wagon deliveries covered only by Standard Commercial Consumers Contract, effective Jan. 1, 1935.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
N. Orleans, La.	16.0	19.5	‡8.0	12.0
Ba.on Rouge	15.2	18.7	†7.0	12.0
Alexandria	16.1	19.6	†*8.0	10.0
Lafayette	16.3	19.8	‡*8.0	12.0
Lake Charles	16.2	19.7	†*8.0	12.0
Shreveport	11.5	14.0	†7.0	13.0
Knoxville, Tenn.	18.7	22.2	8.0	13.5
Memphis	17.0	20.5	8.0	10.5
Chattanooga	18.5	22.0	8.0	11.0
Nashville	18.0	21.5	8.0	13.0
Bristol	17.0	20.5	8.0	14.0

*Includes city tax of 1 cent.
‡Includes 2-cent parish tax. †Includes 1-cent parish tax.

Effective October 23, tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline: Tank wagon†	Gasoline: Posted retail	Gasoline: Incl'ds tax of	Kero- tank wagon
San Francisco	16.5	18.5	4.0	12.5
Los Angeles	15.5	17.5	4.0	12.5
Fresno, Calif.	17.0	19.0	4.0	14.0
Proenix, Ariz.	20.0	22.0	6.0	‡16.0
Reno, Nev.	19.0	21.0	5.0	15.5
Portland, Ore.	19.0	21.0	6.0	13.5
Seattle, Wash.	19.0	21.0	6.0	13.5
Tacoma	19.0	21.0	6.0	13.5
Spokane	22.0	24.0	6.0	18.0

*Retail prices posted by Standard Stations, Inc., a subsidiary.
†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.
‡Includes 5-cent state tax.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Phil'delphia, Pa.	14.0	16.0	4.0	9.0
Pittsburgh	15.0	17.0	4.0	10.0
Allentown	14.5	16.5	4.0	10.0
Erie	15.0	17.0	4.0	9.0
Scranton	15.0	17.0	4.0	10.0
Altoona	15.0	17.0	4.0	10.0
Dover, Del.	14.5	16.5	4.0	10.0
Wilmington	14.5	16.5	4.0	9.0
Springf'd, Mass.	13.0	16.5	4.0	8.5
Worcester	13.0	16.5	4.0	9.0
Hartford, Conn.	12.0	15.5	3.0	8.5
New Haven	12.0	15.5	3.0	8.0
Providence, R.I.	11.5	14.0	3.0	8.0

Note—Tank wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Canada*

Imperial 3-Star Gasoline

IMPERIAL OIL, LTD.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Hamilton, Ont.	†22.0	25.0	6.0	17.5
Toronto, Ont.	†22.0	25.0	6.0	17.5
Brandon, Man.	30.3	33.3	7.0	21.8
Winnipeg, Man.	28.7	31.7	7.0	20.2
Regina, Sask.	29.0	32.0	6.0	21.5
Saskatoon, Sask.	31.8	34.8	6.0	24.3
Edmonton, Alta.	31.2	34.2	6.0	23.7
Calgary, Alta.	28.5	31.5	6.0	21.0
Vancouver, B.C.	27.0	30.0	7.0	24.0
Montreal, Que.	24.0	27.0	6.0	17.0
St. John, N.B.	26.0	30.0	8.0	19.5
Halifax, N. S.	26.0	30.0	8.0	19.5

*Imperial gallon used in Canada. †Governed by service station price.

Maritime provinces, all dealers 4 cents off service station price. All other provinces open dealers 3 cents per gallon off service station price (except Toronto and Hamilton cities which are—open dealers 2½ cents off service station price) 1 cent additional to 100 per cent accounts.

Naphtha

	Tank wagon*
Oleum spirits	16.7
V.M.&P. naphtha	18.0
Cleaners' naphtha	18.0
Stanisol	18.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax nor 3 per cent retail occupational tax.

Prices f.o.b. Chicago, January 5, 1935. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

New York and New England

SOCONY-VACUUM CO., INC.

	Gasoline: Posted dealer	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Albany, N. Y.	12.75	16.0	4.0	9.0
Met. New York	11.75	14.5	4.0	8.0
Br'klyn, Queens	11.5	14.0	4.0	8.0
Buffalo	9.5	12.0	4.0	8.0
Rochester	12.5	15.0	4.0	8.5
Syracuse	12.5	15.0	4.0	8.75
Boston, Mass.	12.5	16.0	4.0	8.0
Portland, Me.	14.5	18.0	5.0	8.75
Manch't'r, N.H.	14.5	18.0	5.0	9.0
Burlington, Vt.	16.0	19.5	5.0	9.5

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero- tank wagon
Ohio points	15.5	17.5	5.0	*13.0

*Includes state tax of 1 cent, effective July 22.

Retail Price Changes

Regular-Grade Gasoline and Kerosene

Standard Oil Co. of Indiana, March 8, advanced tank wagon kerosene 1 cent in Chicago.

Atlantic Refining Co., February 27, advanced tank wagon gasoline 1 cent and station gasoline 3 cents in Erie. This corrects an error quoted March 7. February 26, reduced tank wagon kerosene one-half cent in Providence.

Continental Oil Co., March 2, reduced tank wagon and station gasoline 2 cents in Salt Lake City.

Standard Oil Co. of Louisiana, February 26, advanced tank wagon kerosene 1.5 cents in New Orleans. February 28, advanced tank wagon gasoline one-half cent and station gasoline 1 cent in Chattanooga.

CRUDE OIL PRICE CHANGES

The Panhandle Refining Co., which recently lowered its crude oil price in the North Texas area 15 cents per barrel on all grades it purchases, has restored the regular posted prices being paid in that field, by other buyers, effective March 11. Its new prices range from 79 cents for oil below 29 degrees, up to $1.03 for 40 degrees and over.

Federal Automotive Tax Off 11 Per Cent January

Federal collections from automotive taxes amounted to $20,623,837 in January, a decline of 11 per cent from the amount collected in the same month a year ago, but the revenue from gasoline, pipe line transportation, and inner tubes decreased, while that from lubricating oil, trucks, parts and accessories, and tires increased. Two federal taxes, inaugurated last July, the crude oil production and processing taxes, brought in $139,383 during the month.

The Government collected $14,451,107 from gasoline, a decline of more than $3,000,000. Inclusion of delinquent taxes from the last three months of 1933, when the federal rate was 1½ cents a gallon, accounts for the large decrease. The comparison of automotive taxes collected during January of 1934 and 1935 is shown in the accompanying table.

Source of revenue	Amount collected Jan. 1935	Jan. 1934
Lubricating oils	$ 2,184,488	$ 1,669,306
Gasoline	14,451,107	17,677,832
Oil by pipe lines	698,012	817,924
Petroleum processed	139,383	.....
Automobile trucks	315,664	190,883
Autos, motorcycles	593,509	711,417
Auto parts, ac'ssories	495,420	389,387
Tires	1,440,975	1,350,740
Inner tubes	305,279	327,674
Total, all automotive	$20,623,837	$23,135,663
Per cent of all revenue collections	14.5	16.6

Chicago Tank Car Gasoline Market Has Strengthened During Past Few Days

By SPECIAL CORRESPONDENT

CHICAGO, Mar. 11.—The tank car gasoline market has strengthened in the past few days to where it has a totally different aspect from any in many months. It is a seller's market. There is a disposition to look for higher prices. Volume of buying has been increasing on the advance, strictly aside from the major refiners' support buying, started in the past few days. Leading buyers, who have been attempting to buy more as the market firmed, have been car lot marketers. Material has been taken in fairly good quantities for resale, indicating these sellers have had little material in storage or previously purchased. Apparently some resellers, while talking of likelihood of the pickup, were somewhat skeptical before it started.

Jobber Buying Better

Jobber buying of gasoline is still of a rather spotty and scattered variety, but is now better. Jobbers seem to have been extremely backward about holding gasoline, but now there is more real indication of interest.

Chances for recovery of tank car prices to where low-octane material will be commanding close to 4 cents a gallon are seen by many. The current program generally discussed contemplates prices somewhat higher. The Chicago area apparently contains little or no gasoline seeking a home. No offerings of material remotely resembling distress products have been made here for some days. Resellers have been scouring for available sources of supply on various grades of material, especially third-grade motor.

While tank wagon and service station markets at the start of the month were becoming a little ragged from small offerings in the tank car market, the better tone in the past few days in tank car trade has had a tendency to clear away such irregularities. Except for some difficulty over commercial account business in some of the larger metropolitan centers, the resale markets are now mostly quiet and recent cuts, especially in third-grade, are clearing up. In the commercial business some complications continue which make the future a little uncertain on returns from that kind of gallonage. Some large consumers are insisting on buying on a cost-plus basis, and seems to have been able to find sellers on that basis.

Gasoline consumption over much of the territory has been opening in response to the season, although bad secondary road conditions in many regions have tended to slow it down. Early reports show February quite a good month for representative companies operating in the central states, although gasoline stock increases have been regarded somewhat anxiously, with the feeling quite general that increases in gasoline stocks have been too large.

Heating Oils

Heating oils have been doing well to hold their own, considering the outpouring of material from the Mid-Continent from sources of supply which held rather liberal quantities of Nos. 1, 2 and 3 oils which they were unable to distribute earlier. Current reports are that the volume of offerings has lightened a little, and with chilly weather hanging on, some stability may be expected.

Kerosene

Kerosene continues firm, sympathetically enhanced by strength of gasoline. Demand is beginning to expand a little, with some refiners predicting 5 per cent higher prices within a few weeks. There is much interest in tractor fuel.

Industrial Oils

In the heavy industrial gas and fuel oils demand has been strictly of a routine nature. Steel mills are taking limited

(Continued on Page 46)

Crude Oil Prices

(Continued from Page 35)

Humble Oil & Refining Co. and Texas Co. Effective September 20 in Salt Flat by Shell Petroleum Corp.

Rocky Mountain States

Iles, light (Sept. 29, 1933)	$.98
Iles, heavy (Sept. 29, 1933)	.90
Florence, Colo. (June 17, 1933)	.80
Fort Collins and Wellington, Colo. (June 17)	(See Salt Creek prices)
Big Muddy (Sept. 29, 1933)	1.01
Frannie, light (May 1, 1934)	.70
Frannie, heavy (Sept. 29, 1933)	.62
Salt Creek and LaBarge (Sept. 29, 1933)	See Stanolind Mid-Continent price schedule
Grass Creek, light (Sept. 29, 1933)	1.18
Grass Creek, heavy (Sept. 29, 1933)	.62
Elk Basin (Sept. 29, 1933)	1.18
Rock Creek (Sept. 29, 1933)	1.02
Lance Creek (Dec. 16, 1932)	.92
Hudson (June 2, 1931)	.65
Lost Soldier (Sept. 30, 1933)	.88
Hamilton Dome, all grades (Feb. 16, 1935)	.57
Torchlight (Sept. 29, 1933)	1.19
Greybull (Sept. 29, 1933)	1.18
Pondera (Sept. 29, 1933)	1.25
Sunburst (Sept. 29, 1933)	1.35
Cat Creek, Montana	1.07
Hogback (Sept. 29, 1933)	1.11
Lea County, N. Mex. (Sept. 29, 1933)	.75
Maljamar (Sept. 29, 1933)	.70
Artesia-Jackson (Dec. 1, 1933)*	.75

Note—Salt Creek, Torchlight, Elk Basin, Grass Creek, Frannie, Greybull, Hogback and Iles by Stanolind Oil & Gas Co. Elk Basin, Grass Creek light, Big Muddy, Rock Creek and Sunburst by Ohio Oil Co. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective September 29, 1933, by Humble Oil & Refining Co. and other buyers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro. Hamilton Dome, Wyo., by Stanolind Oil & Gas Co. Pondera, Mont., by Ohio Oil Co. (Stanolind Oil & Gas Co., effective January 1, 1935, posted $1 per barrel in Pondera.)

*Continental Oil Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	$.70
Tullos, Urania, La. (Jan. 13, 1934)	.87
Nevada, Ark. (Sept. 29, 1933)	.60
East El Dorado (Sept. 29, 1933)	.70
Converse, La. (Mar. 17, 1934)	1.03
Elm Grove, La. (Sept. 29, 1933)	.75
Holly, La. (Nov. 17, 1934)	1.03
Pleasant Hill, La. (Mar. 17, 1934)	1.03
Zwolle, La. (Mar. 17, 1934)	1.03
Champagnolle, Ark. (Mar. 17, 1934)	.81
Lisbon, Ark. (Mar. 17, 1934)	1.03
Stephens, Ark. (Sept. 29, 1933)	.70
Urbana, Ark. (Mar. 17, 1934)	.60
Other fields	(See gravity table)

Note—Smackover: Effective September 29, 1933, Texas Co., Magnolia Petroleum Co., Standard of Louisiana, Louisiana Oil Refining Corp., Gulf Refining Co. and Phillips Petroleum Co. East El Dorado posted by Magnolia Petroleum Co. and Gulf Refining Co., Nevada by Standard Oil Co. of Louisiana. Urbana posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co. Converse, Holly, Zwolle and Urbana by Standard Oil Co. of Louisiana; Elm Grove by Simmons Oil & Refining Co.; Pleasant Hill by Standard Oil Co. and Magnolia Petroleum Co. Champagnolle by Standard Oil Co. and Lion Oil & Refining Co.

Eastern States

TIDE WATER PIPE CO.
(Effective Feb. 4, 1935)

Bradford, Pa.	$2.35
Allegany, N. Y.	2.35

SOUTH PENN OIL CO.
(Effective Feb. 4, 1935)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$2.35
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.02
Pennsylvania Grade Oil in Eureka Pipe Line lines	1.97
Pennsylvania Grade Oil in Buckeye Pipe Line lines	1.87
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (Oct. 2, 1933)	1.37

PENNZOIL CO.
(Effective Feb. 4, 1935)

Pennsylvania Grade Oil in National Transit Lines:	
Group A (Includes Cochran, Franklin, Hamilton and Doolittle districts.	$2.27
Group B (Includes Titusville district.	2.26
Group C (Includes Turkey and Tidioute districts.	2.25
Group D (Includes Bear Creek and Porkey districts.	2.24
Group E (Includes Eideneau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacey and Kinzua districts. Price depends on length of pipe line haul to plant at Oil City.	2.21

PURE OIL CO.
(Effective Jan. 4, 1935)

Cabin Creek, W. Va.	$1.83
Bradford Hollow, W. Va.	1.83
Kelly Creek, W. Va.	1.77

CREW-LEVICK CO.
(Effective Jan. 4, 1935)

Oil City-Titusville	2.13

Middle Western States

OHIO OIL CO.

Lima (Feb. 1, 1935)	$1.16
Illinois (Jan. 5, 1934)	1.13
Princeton, Ind. (Jan. 5, 1934)	1.13
Plymouth	Shut in
Western Kentucky (May 26, 1934)	1.08
Midland, Mich. (Sept. 30, 1933)*	1.03
West Branch, Mich.	.86
Oceana, Mich. (Oct. 5, 1933)	.90
Somerset, Ky. (Sept. 30, 1933)	1.28

*Posted by Pure Oil Co. and Simrall Pipe Line Co. Producers Pipe Line Co. pays 8 cents per barrel over Pure Oil Co.'s posted prices. West Branch, Mich., posted by Simrall Pipe Line Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted price includes premium. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

Canada

Ontario (September 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (May 21, 1934):†	
Clear naphtha	$2.55
Discolored naphtha	2.37
Crude oil, 50 gravity	2.19
Crude oil, 45 to 49.9	2.07
Crude oil, 40 to 44.9	1.50

*Imperial Oil, Ltd. †Imperial Oil, Ltd and Regal Oil & Refining Co.

Mexico

Panuco*	$1.01

*F.o.b. ship, based on January transactions and exclusive of production and export taxes and bar dues.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA

(Effective September 6, 1933)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.)

Gravity—	Long Beach	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda, Brea Canyon	Athens-Rosecrans	Torrance	Richfield	Whittier, La Habra	Montebello	Santa Fe Springs	La Habra-Coyote	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga	Coyote
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	....	$.65	$.55	$.65	$.65	....	$.65	$.57	$.57	$.57	$ 65
15-15.9	.65	.65	.69	.69	.66	.69	....	.66	.65	.65	.65	....	.65	....	....	....	.65
16-16.9	.66	.65	.72	.73	.69	.73	....	.69	.67	.68	.65	....	.65	....	....	....	.65
17-17.9	.69	.65	.75	.76	.73	.76	....	.72	.70	.71	.65	....	.68	....	....	....	.68
18-18.9	.72	.65	.78	.80	.76	.79	....	.75	.74	.74	.65	....	.71	.61	.61	.59	.71
19-19.9	.75	.65	.81	.83	.80	.82	....	.78	.78	.78	.65	....	.74	.64	.65	.62	.74
20-20.9	.78	.68	.83	.87	.83	.85	....	.81	.82	.81	.66	....	.78	.67	.69	.65	.78
21-21.9	.81	.72	.86	.90	.87	.88	....	.83	.85	.84	.69	$.72	.81	.70	.72	.68	.81
22-22.9	.84	.76	.89	.94	.90	.92	....	.85	.89	.87	.72	.76	.84	.73	.76	.72	.84
23-23.9	.88	.81	.92	.97	.94	.95	$.83	.89	.92	.90	.76	.79	.87	.77	.79	.75	.87
24-24.9	.91	.85	.95	1.01	.97	.98	.86	.92	.97	.93	.80	.83	.90	.81	.82	.78	.90
25-25.9	.94	.89	.98	....	1.00	1.01	.90	.95	1.00	....	.85	.87	.93	.85	.85	.81	.93
26-26.9	.97	.93	1.01	....	1.04	1.04	.94	.98	1.04	....	.89	.90	.96	.89	.88	....	.96
27-27.9	1.00	.98	1.04	....	....	1.07	.97	....	1.08	....	....	.94	.99	.93	.91	....	.99
28-28.9	1.03	1.02	1.07	....	....	1.10	1.01	....	1.11	....	....	.98	1.02	.97	.94	....	1.02
29-29.9	1.06	1.05	1.09	....	....	....	1.04	....	1.15	....	....	1.01	1.05	1.01	.97	....	1.06
30-30.9	1.09	1.10	1.12	....	....	....	1.08	....	....	....	....	1.05	1.09	1.05	1.00	....	1.09
31-31.9	..	....	....	....	....	....	1 12	....	....	....	....	1.08	1.12	1.09	....	....	1.12
32-32.9	....	....	....	....	....	....	1 15	....	....	....	....	1.12	1.15	1.13	....	....	1.15
33-33.9	....	....	....	....	....	....	..	....	....	....	....	1.16	1.18	1.17	....	....	1.18
34-34.9	....	....	....	....	....	....	....	....	....	....	....	1.19	1.21	....	....	....	1.21
35-35.9	....	....	....	....	....	....	....	....	....	....	....	1.23	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	1.26	....	....	....	....	....
37-37.9	....	....	....	....	....	....	....	....	....	....	....	1.30	....	....	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	....	1.34	....	....	....	....	....

Additional Standard Oil Quotations

Mountain View—Effective July 3, 1934, the following are the prices of the Standard Oil Co. of California for its current purchases of crude oil at the well in the Mountain View Field: 14 to 19.9 degrees, 57 cents; 20-20.9, 58 cents; 21-21.9, 59 cents; 22-22.9, 61 cents; 23-23.9, 63 cents; 24-24.9, 66 cents; 25-25.9, 69 cents; 26-26.9, 72 cents; 27-27.9, 75 cents, 28-28.9, 78 cents; 29-29.9, 81 cents; 30-30.9, 84 cents; 31-31.9, 87 cents; 32-32.9, 90 cents; 33 degrees and above, 93 cents.

Elwood Terrace—F.o.b. ship, 32 degrees, $1.03; 34 degrees, $1.06; 35-35.9, $1.09; 36-36.9, $1.12; 37 degrees and over, $1.15.

Newhall—14 degrees and over, 57 cents.

McKittrick and Kern River—14 degrees and over, 57 cents.

Wheeler Ridge—14 to 17.9 degrees, 57 cents; 18-18.9, 58 cents; 19-19.9, 61 cents; 20-20.9, 64 cents; 21-21.9, 67 cents; 22-22.9, 70 cents; 23-23.9, 73 cents; 24-24.9, 76 cents; 25 degrees and over, 79 cents.

Kettleman Hills—33-33.9 degrees, 93 cents; 34-34.9, 96 cents; 35-35.9, 99 cents; 36-36.9, $1.02; 37-37.9, $1.05; 38-38.9, $1.08; 39 degrees and over, $1.11.

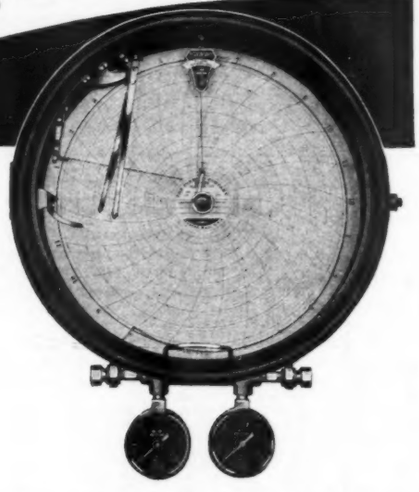
The Texas Co. posted in Shiells Canyon, South Mountain and Santa Paula as follows: 14 to 17.9, 57 cents; 3 cents added for each degree up to and including 26-26.9 degrees at 84 cents; then 4 cents added for each degree up to and including 30 degrees and over at $1. Company posts Standard Oil Co.'s Montebello prices in Montebello and North Whittier, and posts Standard Oil Co. prices in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield and Santa Fe Springs, all effective September 6.

General Petroleum Co. posts Standard Oil Co. prices in Athens, Rosecrans and Signal Hill; Alamitos Heights up to 26-26.9; Santa Fe Springs up to 35-35.9; Richfield up to 25-25.9; Brea Canyon and Olinda up to 25-25.9, and Torrance up to 25-25.9.

Union Oil Co., effective September 6, posts same price as Standard Oil Co. in all fields in which both purchases, excepting that in Athens-Rosecrans, Union Oil Co. posts 21-21.9, 72 cents, and 33--33.9, $1.18; 34-34.9, $1.21, and 35-35.9, $1.24.

Associated Oil Co., effective September 6, posted same prices for the same grades as Standard Oil Co. of California, excepting that in some fields its gravity scale stops as follows: Huntington Beach, 26 degrees and over; Seal Beach and Alamitos Heights, 36 degrees and over; Coyote Hills, 23 degrees and over; Richfield, 25 degrees and over; Torrance, 25 degrees and over; Inglewood, 24 degrees and over; Santa Fe Springs, 35 degrees and over; Midway-Sunset, Elk Hills, Buena Vista Hills, 36 degrees and over. Also Associated pays 52 cents for oil of 11 to 13.9 gravity in McKittrick, Kern Front, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills and Coalinga.

"Yes, we have learned our lesson! Without RESET and Wide Throttling Sensitivity a Controller is not complete. It may work—sometimes it will with help—but no more guess and hope for us. Not when we don't need to."



All but the simplest control problems require wide throttling range or adjustable sensitivity. But wide throttling range will cause "wandering control point"—unless the control point is continually reset. With the Stabilog this is done automatically because the Stabilog has RESET.

RESET is the automatic, built-in mechanism that positively prevents wandering or drift of control point. It makes the Stabilog 100% automatic at all times. The Stabilog is a complete unit and does a complete job. It is not necessary to "nurse" it into operation. For smooth control of Temperature, Flow, Level and Pressure use Stabilogs. Write for Bulletin No. 175 or send us your specific problem.

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Interest in Southwest Texas Districts Centers on Wildcat Tests Along the Jackson Trend

SAN ANTONIO, Tex., Mar. 11.—Interest in the Southwest Texas district continued to be centered on scattered wildcat tests which have reached interesting depths along the Jackson trend. These tests include several through various sections of Bee County; Tonkin and others' No. 1 Henke, western Karnes County; and O. W. Killam's No. 4 Wade in northern Jim Wells County.

In Bee County, 1 mile southwest of production in the Caesar Field, Neversuch Oil Co.'s No. 1 Barroun is being watched very closely as it cores for the Pettus sand below 3,090 feet. It is reported to have showed some gas around 3,000 feet. It is 1 mile southwest of Firm Oil Co.'s No. 1 Grissom in the Charles Baker Survey and if it makes a producer it will be a valuable extension to this field, which has recently received its first production. It was originally discovered as a gas field, and received its first production the past year.

A production test is scheduled at Tonkin and others' No. 1 Henke, southwest of Falls City, western Karnes County. Casing was cemented at 2,150 feet and plug is to be drilled the first part of the week. On an electrical coring test, it showed a sand with possibilities of production from 2,150-2,212 feet, and on an unsatisfactory drill stem test, it tested a small amount of oil. The sand is believed to be in the Cook Mountain formation and if it makes a producer it will open a new producing horizon for this particular area.

Drilling Deeper

In the Sandia gas field, northern Jim Wells County, O. W. Killam's No. 4 Wade is drilling below 4,295 feet. It cored another sand from 4,167-76 feet and on a drill stem test it showed 8 joints of oily mud, and 4 joints of salt water on a 10-minute test. The pressure showed about 10 pounds. The test was originally completed at 4,029 feet for an oil well a few weeks ago, but it soon went to salt water and is being drilled deeper in search of a deeper sand. In the southern part of the county about 5 miles west of Premont, P. M. Evans and others have made location and are building derrick for their No. 1 Cristler located near the center of Section 41 of the I.&G.N. Survey. It is reported that A. N. Hagen is planning a test to be drilled on a block west of Alfred between the town and Plymouth Oil Co.'s block.

In the Seeligson Field, southern part of Jim Wells County, Sinclair Prairie Oil Co.'s No. 1 Seeligson opened up a new gas sand for the field when it was completed for an estimated 30,000,000-foot well in sand slightly below 2,500 feet. This test blew out and caught fire some time ago in sand at 2,366 feet and ran wild for almost a month before it was killed by drilling a deflected hole.

Humble Buys Acreage

More importance was added to the Loma Novia Field, Duval County, the past week when Humble Oil & Refining Co. purchased 2,000 acres out of the Wood-Welder ranch for a consideration of $200,000, part of which was cash and the rest to be paid out of oil. Recent completions in the field have attracted considerable attention and the area has the appearance of becoming an important field for this section. The discovery well, Humble Oil & Refining Co.'s No. 1 Ruiz, was completed for a small producer, but two tests due west were completed for much better wells, and they have been offset on the south by the Texas Co. Humble Oil & Refining Co. is completing its No. 2 Ruiz, a half mile south and a quarter mile east of the discovery, and it has the appearance of making a good well. The Magnolia, Shell Petroleum Corp., the Texas Co. and Humble Oil & Refining Co. are the principal acreage holders in the area. The production is from the Government Wells sand found at around 2,800 feet.

In the Sinton area, San Patricio County, considerable activity is now under way, as there are four active tests, two by Pylmouth Oil Co. and one each by Stanolind Oil & Gas Co. and Heep Oil Corp. Near the town of Sinton, Plymouth Oil Co.'s No. 2-B Welder is preparing to drill plug to complete as a gas well in sand at 5,386 feet. Ten miles northeast of Sinton the company has spudded in its No. 1-C Welder, a recent location. Four miles west and a mile south of the townsite, Stanolind Oil & Gas Co.'s No. 1 McMillan is drilling below 4,000 feet. Heep Oil Corp.'s No. 1-B Welder in the townsite area is drilling below 5,900 feet.

Balcones Fault Area

In the Balcones fault zone area, Shoemaker and others' No. 1 Mary Roche, a wildcat in the northeast corner of Frio County, tested sand from 2,367-71 feet which showed nothing, and is coring ahead. In the central part of the county, Amerada Petroleum Corp.'s No. 3 Halff & Oppenheimer is plugged back to its original depth of 3,929 feet, where it was completed for an initial production of 270 bbls. before it was drilled into salt water, and is reported to be making 5 bbls. an hour flowing through casing, with no salt water showing. Although the well is considered small, it proves the existence of a structure, on which some interesting tests no doubt will be drilled in the future. The test is on a block of approximately 68,000 acres and No. 3 Halff & Oppenheimer is the fourth test to be drilled by the company.

A number of new locations were announced for the fault zone district. Marts & Beavers made location for No. 1 Miller 4 miles south of Elgin in northern Bastrop County, in the Dennis Dykes Survey, which is a Serpentine prospect. Four miles northeast of Lockhart in Caldwell County, L. S. Blount has made location for No. 1 Jolly in the Edward Pettus Survey. Northeast of the Salt Flats Field in the Edward Brown Survey, Coffield and others have made location for No. 1 Franks. In Medina County, 7 miles northeast of Devine in the John Degat Survey, John Lynd and others are moving in machinery for their No. 1 P. Jungman.

A few miles north of Luling, Caldwell County, Reedy and Suggs' No. 1 Thomas North, 2 miles north of production has apparently opened up a small producing area, when it was reported to have made around 20 bbls. daily from a total depth of 2,485 feet. It has not yet been completed.

Sidetrack Hildalgo County Test

Northwest of Mission, Hidalgo County, D. D. Oil Co.'s No. 1 Brock & Showers, a wildcat that has caused considerable trading in that area, due to a reported saturated core taken from 3,053-58 feet, has been plugged back and sidetracked, and is drilling in the new hole below 2,976 feet. It should reach the depth from which the core was taken in the old hole some time this week. The test was plugged back due to a fishing job.

One mile south of production in the Barbacoas Field in Porcion 89, Ancient Jurisdiction of Camargo, Starr County, Armstrong, Emanuel & Adams' No. 1 Starr County Cattle Co. cored sand from 2,705-11 feet, the total depth, and is to be tested this week.

Three completions were reported for the West Tuleta Field, Bee County, all being within the proven limits of the field. Houston Oil Co. completed its No. 3 Strauss in Section 20, for an initial production of 100 bbls. daily from a total depth of 3,970 feet. The Pettus sand was cored from 3,960-70 feet. Edwin M. Jones' No. 2 Robinson, Section 5, was completed for an estimated 300-bbl. well, at a total depth of 3,967 feet. Tuleta Oil Co.'s No. 3 Skinner & Harris, in Section 10, made 300 bbls. daily from a total depth of 3,932 feet.

Wildcat Operations in Southwest Texas

Week Ending March 9

BANDERA COUNTY

W. B. Kyle et al's No. 1 Duke, 200 ft. NW line, 150 ft. SW line of J. A. Bennett Sur. No. 7.
Waiting on rig; drlg. wtr. well.

Plateau Oil Co.'s No. 1 Garrison, G.C.&S.F. Sur. No. 506, 1,500 ft. from N and 2,700 ft. from E lines of survey.
Drlg. 1,900 ft.

BASTROP COUNTY

Marts & Beavens' No. 1 Miller, 235 ft. from NE line, 414 ft. from SE line of Blk. 22, Dykes Sur.
Drlg. 900 ft.

BEE COUNTY

Diamond Half Oil Co.'s (H. H. Weinert) No. 1 McKinney, 2,740 ft. from NW line, 330 ft. from NE line of Spenner Morris Sur.
Drlg. 2,500 ft.

Dirks Bros. and Earl Callaway's No. 1 Milster, 4,950 ft. from N line, 990 ft. from E line of Chas. B. Shain Sur.
Abd. 3,757 ft.

Haines-McMillan Oil Corp.'s No. 1 Stoltzfus, 150 ft. from N and E lines of NE¼ NE¼ NW¼ Sec. 14.
Bldg. derrick.

Humble O. & R. Co.'s No. 2 Thompson, 466 ft. NW of SE cor. of J. C. Wood tract, Wm. Burke Sur.
Drlg. 4,425 ft.

Mid-Texas Oil Co.'s No. 1 Trabland, 330 ft. from S and E lines of 91-ac. tract, ½ mile E of Normana.
Drlg. 4,510 ft.

George Pace et al's No. 1 Goree, C of Blk. 26, Tarver-Hensiee Subd., Thos. B. Barton Sur.
Abd. 2,950 ft.

Worth Oil Co.'s No. 1-A Rutledge, 100 ft. S of No. 1, B. Q. Hadley Sur.
Drlg. 1,600 ft.

BEXAR COUNTY

Campbell's No. 1 Cantu, offsetting Meador's No. 1 Cantau, 150 ft. SW line, Arocha Sur. No. 15.
W.O.C. 1,467 ft.

Jones & Kieffer's No. 1 LaGrane, NW cor. of tract, 210 ft. each way, F. Rolen Sur.
Testing 586 ft.

Geo. O'Neil's No. 1 Holly Crouch, NW cor. of 150-ac. tract.
Preparing to set csg. 1,395 ft.

CALDWELL COUNTY

Kurz Oil Co.'s No. 1 Kurz ranch fee, 4,600 ft. SW line, 4,300 ft. SE line of Barnard Kiecamp Sur.
Abd. 4,110 ft.

Reedy & Sugg' No. 1 Thos. North Estate, 150 ft. from SE line, 1,290 ft. from SW line of 95.5-ac. tract, A. Floyd Sur.
T.D. 2,485 ft.; est. 20 bbls.; still working on test.

DUVAL COUNTY

Buffalo-Texas Syndicate's No. 1 Escobas, 2,777 ft. from N line, 1,944 ft. from W line of 930-ac. tract in San Francisco grant.
S.D. 4,010 ft.

Eckert-Peacock et al's No. 1 C. W. Sutherland, 330 ft. N and W lines of SW¼ NE¼ of Sur. 188.
Standing 2,361 ft.

Pearson et al's (Grimes et al) No. 1 Fitzsimmons, 300 ft. from S line, 150 ft. from E line of Sur. 291.
Fishing 4,450 ft.

EDWARDS COUNTY

Harry Adams' No. 1 Holman, 1,650 ft. N line, 330 ft. from E line, Sec. 22, C.C.S. D.&R.G.N.G. Sur.
S.D. 602 ft.; showing oil at 520-25 ft. and trying to pull csg.

FAYETTE COUNTY

Clark et al's No. 1 Becker, 750 ft. NW line, 1,300 ft. SW line of 143.74-ac. tract in A. E. Baker League.
Location.

Ross Fenton's No. 1 Kasper (262-ac.), 3,000 ft from NE line, 1,280 ft. from SW line, of Thos. Green Sur. No. 28.
Location.

FRIO COUNTY

Amerada Pet. Co.'s No. 3 Halff & Oppenheimer, 2,100 ft. from southwesterly NW line, 300 ft. NE line of B. J. Gilman Sur. No. 16.
T.D. 3,933 ft.; jetting 5 bbls. per hr. at 3,929 ft.; no wtr.

W. T. Shoemaker's No. 1 M. Roche, 150 ft. SW cor. of Carl Wenzel Sur. No. 139.
T.D. 2,371 ft.; bailed dry; cored again.

GILLESPIE COUNTY

Ed L. Nixon's No. 3 Lindig, 12,694 ft. S line, 1,333 ft. W line, Maria Josepha Guerra Sur. No. 41.
S.D. in lime 692 ft.

GONZALES COUNTY

Southwestern Dev. Co.'s (Kyle & Von Rossun) No. 1 W. S. Atkinson, 2,054 ft. from N line, 1,034 ft. from E line of 185-ac. tract in S. Y. Reams Sur.
Drlg. 2,500 ft.

GUADALUPE COUNTY

C. W. DeFreest's No. 1 Henry Beck.
Moving in material.

A. D. Locke's No. 1 Lowman, 210 ft. from SE and SW lines of 2,500-ac. tract in C. Campbell Sur.
Drlg. 1,049 ft.

Seidemann et al's No. 2 Seidemann, 400 ft. from NW line, 360 ft. from NE line of 147.5-ac. tract, Esnaurrizer Sur.
Drlg. 1,500 ft.

HIDALGO COUNTY

D. & D. Oil Co.'s (Clay, Spencer & Hood) No. 1 Brooks & Showers, 330 ft. N and E lines of Lot 4, Blk. 26, Por. 79-80.
Drlg. 3,000 ft.

Kingwood Oil Co.'s No. 1 Doughty, 1,214 ft. from N line, 3,750 ft. from W line of Tract 90, in San Salvador del Tule grant.
Abd. 4,010 ft.

Maxwell-Young's No. 1 King, 175 ft. N and E lines of Lot 8, Blk. 11.
T.D. 875 ft.; standing.

(Continued on Page 47)

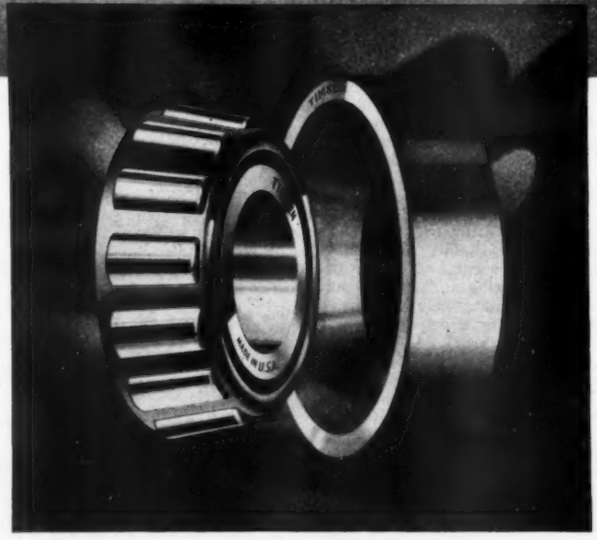
ROCKY MOUNTAIN RUNS

Estimated daily average production for the week ending March 9, follows:

	Bbls.
WYOMING	
Salt Creek	17,620
Big Muddy	1,700
Badger Basin	40
Black Mountain	140
Byron	360
Dallas Derby	510
Dutton Creek	80
Elk Basin	430
Ferris	10
Frannie	220
Garland	150
Grass Creek	shut in
Hamilton Dome	550
Hudson	240
LaBarge	1,070
Lance Creek	690
Lost Soldier	2,050
Mule Creek	shut in
Midway	50
Notches	shut in
Oregon Basin	2,380
Osage	720
Pilot Butte	30
Rex Lake	shut in
Rock River	1,420
South Casper	shut in
Poison Spider	110
Teapot	20
Total Wyoming	30,590
MONTANA	
Buckley-Border	210
Cat Creek	730
Cut Bank	5,320
Kevin-Sunburst	3,410
Lake Basin	40
Pondera	1,580
Total Montana	11,290
COLORADO	
Florence	200
Fort Collins and Wellington	430
Iles Dome	2,720
Moffat	440
Orchard	110
Rangely	90
Tow Creek	200
Total Colorado	4,190
NEW MEXICO	
Artesia	580
Cooper area	3,010
Eunice area	4,360
Hobbs	31,400
Hogback	160
Hospah	shut in
Jal	3,380
Lea area	1,410
Maljamar	1,830
Rattlesnake	700
Table Mesa	40
Total New Mexico	46,870
Total Rocky Mountain region	92,940

The OCS Duck is completely

TIMKEN - EQUIPPED



All revolving bearings in this modern portable pumping unit are Timken Tapered Roller Bearings. There are 12 Timkens in all—2 on the primary shaft, 2 on the intermediate shaft, 4 on the crank shaft and 2 on each wrist pin. That's PROTECTION.

Commenting on the use of Timken Bearings in this equipment Mr. D. R. Brown, Vice President of the O. C. S. Mfg. Company says: "We use Timken Bearings in these machines because they run for the longest time with the least attention." That's a reason every oil field operator will appreciate. The O. C. S. Duck has a capacity of 20 H. P. at 20 strokes per minute and a maximum well load of 15,000 pounds. It is recommended for wells up to 3,400 feet.

O. C. S. knows from long experience that it pays to equip with Timken Bearings—and so do users of O. C. S. equipment.

TIMKEN Tapered Roller BEARING EQUIPPED

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

TIMKEN TAPERED ROLLER BEARINGS

Drilling Continues to Increase in West Texas Field; World's Deepest Test Is Below 11,515 Feet

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Mar. 11.—Drilling activities continue to increase in West Texas areas opened during the past year and a half now contending in a drilling pace. Southern Ward County continued active despite the depression when little drilling was going on in other proven spots. The Cowden and Addis areas and the older Penn Pool in Ector County are also active. Humble Oil & Refining Co. continues to make locations in the Means area of Andrews County, and this week Honolulu and Llano Oil Co. made location for No. 1-B Parker, in Section 11, Block A-43, in that county. This location is diagonally southwest of the companies' No. 1 Parker discovery in Section 7, brought in several months ago making 153 bbls. per day after plugging back from 4,780 feet to 4,731 feet to shut off bottom hole water. It is about 5 miles southeast of the old Deep Rock area.

The Howe and Halley areas, both flanking the Hendricks Pool to the east, in Winkler County, are also scenes of considerable activity. If tests now showing for producers on acreage in the trend between the widely separated sandy lime pools, prove producers, drilling will increase in marked degree, it appearing now as if the two areas might be linked by production.

The old McCamey Pool in Upton County has also seen the drilling of several wells on the eastern flank during the past few months. This week two producers were completed. Both tests were acidized to increase production. Acid treatment in this pool is somewhat of an innovation, and no doubt the operators who drilled in 1926 and 1927 now wish they had known about such a method.

The Dodge-Denman area in eastern Howard County is another active spot, with several rigs running in the older producing area, the Chalk-Roberts and Settles Pools, which extend from Howard County over into Glasscock County.

The Yates Pool and the Taylor-Link Pool, Pecos County, also are active, the Toborg Pool, the shallow area directly northwest of the Yates Field seeing the completion of at least one well each week.

Activity in the Eastern Side

Jones, Fisher and Taylor Counties, on the eastern side of the district, have come in for their share during the past year, several small shallow areas having been opened in northern Jones County.

Southern Oil Corp. and others have been extending the producing area of Fisher County, and have had some exceptionally good results from acidizing wells. One well, the Callihan-O'Donnell well, Section 202, Block 1, B.B.B.&C. Survey, Fisher County, was making only about 10 bbls. per day when purchased. It was reworked and came through as a 200-bbl. producer. However, another well owned by this company, in this area, was completed for a 2,000-bbl. producer without being acidized, and is one of the best wells in the pool. It is in Section 202, Block 1. The company is now drilling in the center of a 1,000-acre block, which if it makes a well, will prove considerable acreage.

While drilling progressed in search of wildcat producers from the Permian lime and shallower pay horizons, both lime and sand, companies and others have been seeking Ordovician or deep production in the district. John I. Moore and others' No. 1 McDowell, in Section 22, Block 34, Township 2s, T.&P. Survey, Glasscock County, is the most closely watched deep test in the basin. Casing has been run and cemented at 9,469 feet, and plug is expected to be drilled this week. Total depth is 9,520 feet and a good showing of oil was logged at 9,510 feet after logging the Crinoidal limestone at 9,471 feet.

Deepest Test in World

The deepest test in the world, Gulf Production Co.'s No. 103 McElroy, in Section 197, Block F, on the western edge of Upton County, located amidst Permian lime producers, is drilling below 11,515 feet. It is drilling with 1,219 feet of open hole, but the formation is so hard no difficulty is experienced from cavings or other hole troubles. The formation in the hole has again hardened, only 9 feet of hole being made during the past 12 hours. But this is much faster drilling than when it made only 6 inches during an entire day's drilling.

Fisher County Discovery

Merry Brothers and Perini and Tide Water Oil Co.'s discovery on the Mary Howard farm, in Section 180, Block 2, H.&T.C. Survey, Fisher County, has come through for a better well than anticipated. During the first 24 hours it pumped 160 bbls. of oil and 140 bbls. of water. The second 24-hour gauge showed a production of 265 bbls. of oil and only 64 bbls. of water. Total depth was 3,679 feet, but it was plugged back to 3,672 feet and redrilled to 3,674 feet to shut off water and before completing. However, all the water was not apparently shut off. Another test is to be started to the southeast of the discovery, on an 8,500-acre block, three-quarters interest being held by the Tide Water Oil Co. and the remainder by Merry Brothers and Perini. The oil tested 38.8 gravity, and is similar to that found in the Royston Pool, about 9 miles to the northeast.

Terrell County

Another West Texas test that might be carried to the Ordovician lime is Marathon Oil Co.'s No. 1 M. H. Goode in Section 26, Block 161, G.C.&S.F. Survey, Terrell County. This wildcat was drilled to 6,120 feet in 1931 and was carried no deeper after gas was struck and the rig burned. The gas was struck in the Pennsylvania lime at 5,605-12 feet, and was estimated at better than 6,000,000 feet per day.

Gulf Production Co.'s No. 9 Waddell, in Section 11, Block B-23, a semiwildcat drilling between the old Waddell Pool and a more recently discovered small well in Section 12, appears as if it would connect with the Waddell Pool. No. 9 Waddell made a 15-bbl. head of oil on March 10, and is now drilling below 3,470 feet. Pay was topped at 3,370-90 feet, corresponding with the pay found in the Waddell wells and the discovery to the east.

Wahlenmaier and others' No. 1 Kloh, in Section 33, Block 44, Township 3s, T. & P. Survey, nearly 1½ miles north of No. 9 Waddell, also looks as if it might make a producer, which would widen the producing area to a considerable extent. An estimated 1,000,000 feet of gas, coming from 3,150-63 feet, was killed and casing cemented around 3,130 feet. Saturated lime and oil was logged from 3,305-24 feet, and it made one head of oil, cleaning itself, refilling with 1,800 feet of oil. This oil showing is above the horizon from which oil was logged in the Caprito producer to the southeast.

Crane County

Crane County is to receive another wildcat test, by Gulf Production Co. Location has been staked for a 4,500-foot test, 660 feet from the south and west lines of Section 9, Block B-21. This is on the west side of the county and 4½ miles due north of its Tubbs discovery well in Section 9, Block B-27, which has been producing for the past four years.

El Paso County

Tri-State Oil Co. has staked location and moved in standard tools for a wildcat test in Section 237, A.T.&S.F. Survey, El Paso County. So far tests in this county have not shown perseverance. Sometimes they are completed, but generally they are not carried to even an interesting depth. One test has been shut down at 1,415 feet in the county for many months, and that is generally the way tests in this county run.

N. L. Richards has made a location in Section 3, Block 5, in the K. Aycock Survey, the first test this county has had in a long time. T. O. Shappell has made a wildcat location 7 miles south of Hawley in Jones County, and has moved in machine in Section 7, Block 16, T.&P. Survey.

New Area in Pecos County

International Petroleum Corp. has made a deal with the Cardinal Oil Co. of San Angelo whereby the former is to drill a location (changed a little from the first one made) 2,310 feet from the south and 330 feet from the east lines of Section 4, Block 207, T.C. Railway Survey, south of Gulf Production Co.'s discovery on the White and Baker ranch, approximately 9 miles west of the Yates Field, Pecos County. Cardinal Oil Co. is down 827 feet on a test in Section 51, Block Z, T.C. Railway Survey, and Gulf Production Co.'s No. 4 White and Baker, a little over a mile east of the discovery, has been abandoned at 1,890 feet after striking sulphur water. The company is building a road to location for No. 5 White and Baker, about 2 miles west of the discovery, which was completed at total depth of 1,826 feet in lime. No. 5 will be in Section 28, Block 194, G.C.&S.F. Survey.

Tom Green County

J. F. Jacobs and others are drilling around 250 feet on a wildcat on the De Long ranch in the George Smith Survey No. 1,825, in Tom Green County, and John Roseborough has spudded in and shut down on a location in Section 8, Block 3, H.&T.C. Railway Survey, on the Sidlow ranch, between Buena Vista and Imperial, in northeastern Pecos County.

Reeves and Sutton

A test is scheduled to be drilled in Section 7, Block 58, P.S.L. Survey, to 3,600 feet, in Reeves County, and two blocks have been taken in Sutton County. A 2,500-foot test is expected to be drilled on a block centering in Sections 74, 75, 78 and 79, Block B, H.E.&W.T. Survey, and W. M. Lyle of Houston proposes to drill a 4,000-foot test on a block centering in Block A-9, T.C. Railway Survey, Block B, H.E.&W.T. Survey, and Block 9-A, B.S.&F. Survey, Sutton County. Texas Co. and others' No. 1 Mower, in Section 39, Block 5, T.W.&N.G. Survey, Sutton County, was credited with a show-

(Continued on Page 44)

Wildcat Operations in West Texas

Week Ended March 11

ANDREWS COUNTY

Fuhrman Pet. Corp.'s No. 2-B Boner, 440 ft. from N and 1,320 ft. from E, Sec. 25, Blk. A-43.
Drlg. 4,157 ft.

Honolulu & Llano Oil Co.'s No. 1-B Parker, 440 ft. from N and 1,650 ft. from E, Sec. 11, Blk. A-43.
Material.

Humble Oil & Ref. Co.'s No. 3 Means, 1,980 ft. from S and 3,300 ft. from W, Sec. 4, Blk. C-45.
T.P. 4,140 ft.; coring 4,628 ft.; flowed 189 bbls. in 24 hrs.

Humble Oil & Ref. Co.'s No. 3 Means, 660 ft. from N and 1,997 ft. from E, Sec. 9, Blk. A135.
Drlg. 2,981 ft.

Humble Oil & Ref. Co.'s No. 4 Means, 654 ft. from S and 1,997 ft. from W, Sec. 4, Blk C-45.
Derrick.

Stogner et al's No. 1 Richardson, 1,980 ft. N and 660 ft. E, Sec. 4, Blk. A-37, P.S.L.
Drlg. 2,632 ft.

Wahlenmaier et al's No. 1 Odessa Ranch Co., 1,320 ft. from N and E of Sec. 10, Blk. A-32, P.S.L. Sur.
Materail

Wahlenmairer et al's No. 1 Cox Estate, 1,320 ft. from N and W of Sec. 8, Blk. A-33.
Location.

York & Harper's No. 1 Hereford Stock Farms, C Labour 12, League 315, Parmer Co. School Lands.
S.D. 3,430 ft.

BREWSTER COUNTY

F. C. Dodson's No. 1 Texas American Syndicate, 660 ft. from N and E, Sec. 66, Blk. 10, G.H.&S.A. Sur.
Crooked hole 45 ft.

Joiner et al's No. 1 McIntyre, 352 ft. from S, 2,390 ft. from E of Sec. 21, Blk. 352, W. M. Mitchell Sur.
T.D. 2,122 ft.; lost circulation.

King & Franklin's No. 1 Gage Est., C Sec. 138, Blk. 22, G.H.&S.A. Sur.
Drlg. 710 ft.

S. G. Smith's No. 1 Decie, 2,490 ft. from S and E, Sec. 7, Blk. 1.
S.D. 775 ft.

COCHRAN COUNTY

Kelsey's No. 1 Slaughter, C Labour 36, League 150, R.C.S. Lands.
Derrick.

West Texas Development Co.'s No. 1 Slaughter, near C of Labour 53, League 149, Randall Co. School Lands.
Derrick

COKE COUNTY

Haggerty et al's No. 1 Gaston, 340 ft. from S and 654 ft. from W, Sec. 11, Jos. Young Sur. (old well deepening).
Cleaning out; T.D. 2,640 ft.

CRANE COUNTY

Cranfill Bros.' No. 1 Tubbs, 330 ft. from S and W of Sec. 11, Blk. B-27, P.S.L. Sur.
Location.

Gulf Prod. Co.'s No. 1 M. B. McKnight, 660 ft. from S and W, Sec. 9, Blk. B-21.
Material.

Gulf Prod. Co.'s No. 1 Waddell, C NW NW Sec. 4, Blk. B-27, P.S.L. Sur.
Drlg. 3,242 ft.

Gulf Prod. Co.'s No. 9 Waddell, C of NE, Sec. 11, Blk. B-23, P.S.L. Sur.
Drlg. 3,470 ft.

Wahlenmaier Pet. Corp.'s No. 1 Kloh, 330 ft. from S and 1,609 ft. from W, Sec. 33, Blk. 44, Twp. 3s, T.&P. Sur.
T.D. 3,325 ft.; 1,000 ft. fluid in hole.

CROCKETT COUNTY

Eppenauer Drlg. Co.'s No. 1-C Powell, 1,600 ft. from S and 250 ft. from E, Sec. 53, Blk. Fishing 1,565 ft.; elev. 2,665 ft.

Leslie-Hiller et al's No. 1 Todd, 1,200 ft. N and 330 ft. E, Sec. 26, Blk. WX, G.C.& S.F. Sur.
S.D. 580 ft.

Humble Oil & Ref. Co.'s No. 1 Couch, C NW Sec. 3, Blk. QR, G.C.&S.F. Sur.
Temporarily abnd. 1,881 ft.; elev. 2,538 ft.

CULBERSON COUNTY

Anderson-Pritchard Oil Corp., Magnolia Pet. Co. et al's No. 1 Borders, 1,255 ft. N and 2,305 ft. from W, Sec. 34, Blk. 69, P.S.L. Sur.
S.D. 940 ft.

Miller Bros.' No. 1 fee, 1,900 ft. from N and

(Continued on Page 46)

Camp Hill Test, Anderson County, Shows Water; Five New Locations Staked South of Palestine

By L. E. BREDBERG

DALLAS, Tex., Mar. 11.—The Camp Hill test of the Gulf Production Co. on the M. J. Ross farm, in the Robert Erwin Survey, a little over a mile southwest of the company's No. 1 Davey and Royall gas discovery in the M. Rogers Survey, Anderson County, proved a big surprise this week when it showed salt water on a drill stem test made from 4,750-4,800 feet. It is now drilling at 4,870 feet after topping the Red Beds at 4,865 feet. Elevation is 484 feet, and its log compares with the Davey and Royall gasser as follows:

	No. 1 Ross (feet)	No. 1 Davey and Royall (feet)
Elevation	484	574
Top Pecan Gap chalk	3,765	3,893
Base Pecan Gap	3,977	4,223
Top Austin chalk	4,509	4,879
Base Austin	4,696	5,054
Top Woodbine	4,749	5,175
Top Georgetown lime	(*)	5,948

*Not yet logged.

It ran higher on the chalks and the Woodbine sand, consequently was considered as having a good chance for making an oil producer. No. 1 Davey and Royall is producing from the Sub-Clarksville and is also making about 2 bbls. of oil per hour, the oil testing 54 gravity, and starting to show up last week after the test had been making only distillate. The Woodbine sand in this test showed oil and gas, but salt water eliminated the possibilities of producing from that horizon. With No. 1 Ross running higher structurally, it was believed the higher position would place it high enough above the water table to insure production from this horizon. This test has been the most interesting wildcat drilling in the East Texas district.

Gulf Production Co. staked five other locations in this area, about 7 miles southeast of Palestine in Anderson County. No. 2 Davey and Royall is to be a shallow test, 50 feet south of No. 1 gas discovery in the M. Rogers Survey. It is drilling at 310 feet. No. 1 Delaney is 340 feet north along the east line of the Delaney 209.37-acre tract from the southwest corner of the Ross 39.67 acres and 300 feet at right angles. A derrick is up on this location. No. 1 L. B. Ross is in the J. C. Rosson Survey, west of the gas discovery. No. 1 Flint and Scott is south of the Delaney location, and in the P. Martin Survey, and No. 1 Calloway is 305 feet from the south and east lines of that farm, in the P. Martin Survey. All of these locations are for shallow tests, or seeking production in the Carrizo sand, in which the gas discovery picked up a good showing of oil. Two other tests, drilled in quest of Carrizo production, proved dry. Gulf is hoping to validate soon expiring leases by drilling these shallow tests and obtaining production. Five large rotary rigs and seven "spudders" have been moved into the area to test 17 leases by March 27.

Ponta Oil Co. has spudded a test on the C. W. Darley farm in the East Cyrus Park Survey, 2¼ miles south of Summerfield, in Cherokee County, and H. M. Wilson has a derrick up on fee lands, 5 miles north of Malakoff in Henderson County, for a Woodbine sand wildcat.

Another wildcat is expected to be drilled 2 miles northeast of the Lee gas well in the Centerville area, Leon County, but nothing definite has been announced. Another proposed test is expected to be drilled by Sun Oil Co. in the Chappell Hill area of Smith County and an option block has been taken 6 miles south of Gilmer in the Davenport and Burton Surveys, Upshur County, for a test. A 5,000-acre block is being assembled west of Wills Point, centering in the Murray and other adjacent surveys, Van Zandt County, for a Woodbine wildcat, and 3,500 acres has been assembled in the Barkham, Williams and other adjacent surveys in Bowie County for a 4,000-foot test. This land is southwest of New Boston. A. L. Wills has taken around 18,000 acres centering around the town of New Boston in Bowie County, for two wildcat tests. One tentative location is on the I. Parson lands in the W. B. Hawkins Survey and the other is 1 mile east of New Boston on the Hays or Talley lands.

J. B. Foster, of Sioux City, Iowa, has made a tentative location on the Bruecher 98.75-acre tract in the D. Clapp Survey, 4 miles northeast of Myrtle Springs, in Van Zandt County, and another block is being assembled in this same area.

J. F. Morrissey & Co., of Fort Worth, is contemplating drilling on a large block 8 miles north of Commerce in Hunt County.

The Trinity sand test of the Tide Water Oil Co. and Texas Seaboard Oil Co., No. 21-A Wills, in the S. Edmondson Survey, in the Cayuga Field, northwest Anderson County, is rapidly sinking to its objective. It is below 5,450 feet.

There was one wildcat test abandoned in the district during the week. This test, drilled by Humble Oil & Refining Co. on the O. Heitmueller farm, in the J. N. Smith Survey, 2 miles south of West, in McLennan County, was given up as dry at 1,266 feet. It topped the Woodbine at 575 feet. Elevation is 552 feet.

Bob Peveto and House have made location about 1 mile southwest of Tyler, in Smith County, on the F. J. Watson farm, in the O. Anderson Survey.

Humble Oil & Refining Co.'s proposed 6,000-foot Trinity sand test, on the Holderman farm, in the C. Sullivant Survey, Hill County, is below 2,550 feet. It logged the Austin chalk from 685-1,015 feet, and has a surface elevation of 659 feet.

EAST TEXAS FIELD

Purchasing and pipe line companies continue to solicit and trade for connections in the East Texas Field. The East Texas Oil & Refining Co. and Longview Gathering System have taken over 39 connections, which have a daily allowable of 1,192 bbls., from the Union Refining Co.'s plant at Camp Switch, after that plant shut down. One large independent producing and purchasing company in the field has been soliciting smaller pipe line and gathering system companies with the view of gaining connections, giving stock in the larger company for the smaller systems.

It has been reported some smaller purchasers are paying 2 cents per barrel premium to get oil for delivery to a major company line. These smaller companies claim a profit can be made on gathering the oil and delivering to the major companies on a 5-cent a barrel gathering charge.

There were 99 locations reported in the field this week, and 95 tests were completed, all producers but one, which was junked and abandoned. Five were completed on the pump and four were completed as "swabbers," one coming in, flowing by heads, and another flowing through open tubing.

The bottom hole pressure in the field was reported to have fallen to 1,221 pounds, average weighted bottom hole pressure for the field during the month of February. This decline in the average weighted pressure was attributed to an increase in overproduction when the Federal Tender Board was removed from the field in January. On January 1 the average weighted pressure had climbed back to 1,231 pounds.

East Central Texas Wildcats

Week Ending March 9

ANDERSON COUNTY

Gulf Prod. Co.'s No. 2 Davey & Royall, 50 ft. S of No. 1, M. Rogers Sur.
Shallow test; spudded.

Gulf Prod. Co.'s No. 1 Delaney, in P. Martin Sur., 340 ft. N along E line of Delaney 209.37-ac. tract from SW cor. of Ross' 39.67 acres, and 300 ft. at R/A.
Derrick.

Gulf Prod. Co.'s No. 1 Calloway, P. Martin Sur., 305 ft. from S and 330 ft. from E. Location.

Gulf Prod. Co.'s No. 1 L. B. Ross, J. C. Rosson Sur., 330 ft. S and E of 35-ac. tract.
Location.

Gulf Prod. Co.'s No. 1 Flint & Scott, 285 ft. S along E line from NE cor. of 56.75-ac. tract and 330 ft. at R/A.
Location.

Gulf Prod. Co.'s No. 1 O. G. Rogers, 330 ft. out of NW cor. of D. Parker Sur., 5 miles SW of Elkhart.
Rigged up.

Gulf Prod. Co.'s No. 1 M. J. Ross, 1,770 ft. from SW and 1,370 ft. from NW lines of Robt. Erwin Sur.
Elev. 484 ft.; Pecan 3,766-3,970 ft.; S.D. 4,609 ft.; T.D. 4,800 ft.; tested 900 ft. salt in 5 min.; top Woodbine 4,749 ft.

J. W. Luttes' No. 1 C. McKee, 2,640 ft. from N line of lease and survey and 330 ft. from W line of McKey 800-ac. tract.
Derrick.

Tide Water Oil Co. et al's No. 21-A Wells, 4,079 ft. N and 2,333 ft. W of lease. S. Edmondson Sur. (Trinity test)
Top Austin 3,170 ft.; drlg. 5,275 ft.

Worsham's No. 1 Wathen, 1,400 ft. S and 467 ft. from E line of B. Towles Sur., NW of Cayuga.
Elev. 319 ft.; derrick.

BOWIE COUNTY

Tex-Ark. Oil Co.'s No. 1 Hamilton Estate, 600 ft. E and 350 ft. N lines. J. Milan Sur., 4 miles S of Red River.
T.D. 250 ft.; to set csg.

CHEROKEE COUNTY

Jacksonville O. & G. Co.'s No. 1 H. D. Henderson, 660 ft. from N and W lines of 40-ac. tract out of Tankersley 104-ac. tract, 5 miles NE of Jacksonville, J. Pineda Sur.
S.D. 693 ft.

Ponta Oil Co.'s No. 1 C. W. Darby, 1,944 ft. S and 630 ft. W of East Cyrus Parks Sur., 2¼ miles S of Summerfield.
Spudded.

E. M. Thomason et al's No. 1 Addis Estate, 250 ft. S of survey and 150 ft. E of railroad, J. T. Jones Sur., 6 miles NW Alto.
Elev. 471 ft.; drlg. 4,510 ft.

Wilson Stubbs Oil Co.'s No. 1 Rowborts, 450 ft. from S line, 150 ft. from W line of 100-ac. tract, 2 miles SW of Jacksonville, J. D. Wolfin Sur.
S.D. 1,553 ft.

T. J. Woods et al's No. 3 New Birmingham Dev. Co., 1,320 ft. from S and 150 ft. from E lines of 160-ac. tract, L. Jordan Sur., NE of No. 1.
Material.

ELLIS COUNTY

Beckner-Finley et al's No. 1 Coker, 2,900 varas along S line of grant from river and 1,700 varas N at R/A, R. De La Pena Sur.
S.D. 527 ft.

FREESTONE COUNTY

Amerada Pet. Corp.'s No. 1 Burk, 851 ft. S 125 ft. W of river, E. G. Rector Sur.
Top Woodbine 3,832 ft.; oil sand 4,019-25 ft.; S.D. 4,025 ft.

Hoover et al's No. 1 McFall, 150 ft. S and W lines, S. Garrison Sur., E of Mexia.
Location.

Simms Oil Co. et al's No. 1 W. H. Goolsby, 330 ft. out of NW cor. of 50-ac. tract, 4 miles E of Teague.
Drlg. 1,675 ft.

GREGG COUNTY

O. T. Clark's No. 1 Williams, 2,100 ft. from

(Continued on Page 46)

Magnolia Petroleum Co. has sold 26 producing wells and properties, including equipment, warehouses, employes' homes and other lease fixtures in the Mexia, Wortham and Corsicana Pools in Limestone and Navarro Counties to C. L. Brown of Corsicana, head of the Mexia Torpedo Co. Employes were advised they would be maintained on the pay roll of the new owner or given employment by Magnolia in other areas.

Humble Oil & Refining Co. and Texas Co. previously sold their properties in these areas, the new owners working over the old wells or salvaging equipment. One such property was said to have paid for itself in eight months and is still producing and will produce indefinitely.

Harry Howze, pilot and aviation representative of the Standard Oil Company of New Jersey, Houston, Texas

COMPLETIONS IN EAST TEXAS

Gregg County

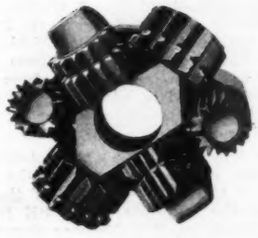
Alco Royalty Co.'s No. 4-A King, top pay 3,589 feet, total depth 3,635 feet, initial production 155 bbls. per hour. Bailey & Trimble's No. 7 Jones, top pay 3,591 feet, total depth 3,630 feet, initial production 30 bbls. in one-quarter hour. Bond Oil Corp.'s No. 1 Tuttle, top pay 3,569 feet, total depth 3,634 feet, initial production 120 bbls. per hour. Collins' No. 4 Fisher, total depth 3,436 feet, initial production 25 bbls. in one-quarter hour. Empire Gas & Fuel Co.'s No. 16 Jeter, top pay 3,524 feet, total depth 3,563 feet, initial production 32 bbls. in one-quarter hour. F. H. E. Oil Co.'s No. 4 Clements, total depth 3,590 feet, initial production 32 bbls. in 15 minutes. Gulf Production Co.'s No. 12 Fonville, total depth 3,555 feet, initial production 70 bbls. per hour; No. 68 Judge, total depth 3,512 feet, initial production 57 bbls. per hour; No. 26 Alexander, total depth 3,595 feet, initial production 82 bbls. per hour.

Humble Oil & Refining Co.'s No. 36 Hughes, top pay 3,688 feet, total depth 3,709 feet, initial production 88 bbls. per hour. Magnolia Petroleum Co.'s No. 15 Foster, top pay 3,564 feet, total depth 3,578 feet, initial production 104 bbls. per hour; No. 4 Rowland, top pay 3,574 feet, total depth 3,600 feet, initial production 15 bbls. in one hour, pumping; No. 14 White, total depth 3,550 feet, initial production 70 bbls. per hour. Roeser & Pen-

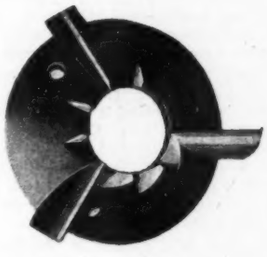
Member Petroleum Equipment Suppliers' Association

Advanced Design That Marks A Long Step Forward In Coring Equipment

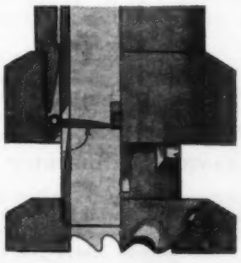
DEAN CORE DRILLS



Rock core head for tough formations, with hole size roller reamers and roller bearing cutters



Regular type core head for all ordinary formations where a rock bit is not required.



Core catcher dogs in closed position after core has been severed; supporting the core within the barrel.

The Dean Core Drill embodies exclusive patented features that represent a wide departure from antiquated design in coring equipment. They have been thoroughly proved in service, having successfully cored the toughest formations in some of the deepest wells in the world. These performance records are available for inspection and speak for themselves.

FEATURES:

The only roller bearing rock type core head with o. d. roller reamers and roller bearing cutters.

Patented core catcher dogs that cut all cores off clean without breaking or deforming, and safely carry practically any load.

O. d. hole reamers that contact and ream to bottom, eliminating tight hole when drilling.

Constructed so that driller can open and close the core catcher by mechanical means at will.

Length of cores practically unlimited, as special core barrels of any length can be supplied.

Interchangeable rock and drag type heads insure successfull coring of all formations, and minimum investment in coring equipment.

All core heads machine ground to exact size, and to a perfect circle.

Will handle any core that can get into the barrel.

The most modern core drill at competitive rental charges.

DEAN CORE BARREL MANUFACTURING SALES AND SERVICE

BAKERSFIELD, CALIFORNIA, U. S. A.

dleton's No. 5 Christian, top pay 3,583 feet, total depth 3,624 feet, initial production 26 bbls. in 30 minutes. Shell Petroleum Corp.'s No. 23 Richer, top pay 3,544 feet, total depth 3,597 feet, initial production 17 bbls. in 15 minutes; No. 10-B Bivens, total depth 3,637 feet, initial production 18 bbls. in 15 minutes.

Sinclair Prairie Oil Co.'s No. 18 Lawson, top pay 3,534 feet, total depth 3,548 feet, initial production 40 bbls. in 15 minutes; No. 11 Williams, top pay 3,486 feet, total depth 3,547 feet, initial production 40 bbls. in 15 minutes; No. 12 Williams, top pay 3,534 feet, total depth 3,545 feet, initial production 40 bbls. in 15 minutes; No. 13 Williams, top pay 3,515 feet, total depth 3,560 feet, initial production 40 bbls. in 15 minutes; No. 43 Cole, top pay 3,573 feet, total depth 3,613 feet, plugged back to 3,582 feet, initial production 40 bbls. per hour; No. 44 Cole, top pay 3,589 feet, total depth 3,590 feet, initial production 25 bbls. in 30 minutes; No. 54 Cole, top pay 3,650 feet, total depth 3,668 feet, initial production 25 bbls. in 30 minutes; No. 56 Cole, top pay 3,648 feet, total depth 3,652 feet, initial production 45 bbls. in one hour. Stanolind Oil & Gas Co.'s No. 4 Jones, total depth 3,678 feet, initial production 16 bbls. in 15 minutes; No. 5 Jones, total depth 3,679 feet, initial production 13 bbls. in 15 minutes.

Sun Oil Co.'s No. 5-A Fuller, top pay 3,641 feet, total depth 3,690 feet, initial production 26 bbls. in one hour; No. 15 Rollins, top pay 3,590 feet, total depth 3,621 feet, initial production 70 bbls. in one hour. Texas Co.'s No. 5 Boles, total depth 3,627 feet, initial production 87 bbls. in one hour; No. 10 Davis, total depth 3,560 feet, initial production 90 bbls. in one hour. Tide Water Oil Co.'s No. 10 Castleberry, top pay 3,588 feet, total depth 3,604 feet, initial production 9 bbls. in 10 minutes; No. 23 Barton, top pay 3,595 feet, total depth 3,610 feet, initial production 15 bbls. in 15 minutes. Yount Lee Oil Co.'s No. 11 Hopkins, top pay 3,480 feet, total depth 3,500 feet, initial production 60 bbls. per hour; No. 13 Stuckey-Thrasher, top pay 3,558 feet, total depth 3,578 feet, initial production 65 bbls. per hour through eleven-sixteenths inch choke; No. 4-B Whatley, total depth 3,557 feet, initial production 16 bbls. in four hours, swabbing. Reserve Development Co.'s No. 5-A Blackman, top pay 3,620 feet, total depth 3,629 feet, initial production 50 bbls. per hour. Tippett's No. 2 Williams, top pay 3,658 feet, total depth 3,670 feet, initial production 15 bbls. in 45 minutes. Weaver & Crim's No. 7 Peterson, total depth 3,610 feet, initial production 33 bbls. in 45 minutes.

Rusk County

Beren's No. 1-B Jones, top pay 3,633 feet, total depth 3,671 feet, initial production 20 bbls. in 30 minutes. Brown and others' No. 8 Hindman, top pay 3,612 feet, total depth 3,627 feet, initial production 75 bbls. per hour. Long's No. 1-A Kennedy, total depth 3,650 feet, initial production 20 bbls. in four hours, pumping. Gulf Production Co.'s No. 10-B Blank, top pay 3,640 feet, total depth 3,644 feet, initial production 25 bbls. per hour through one three-quarters inch choke. Navarro Oil Co.'s No. 18 Brightwell, total depth 3,659 feet, initial production 13 bbls. in 15 minutes through 1¼-inch choke. Shell Petroleum Corp.'s No. 16 Moore, total depth 3,727 feet, initial production 47 bbls. in 30 minutes. Apple's No. 1 Kangerga, top pay 3,640 feet, initial production 25 bbls. in one hour, flowing by heads.

Atlantic Oil Producing Co.'s No. 12-A Pinkston, top pay 3,666 feet, total depth 3,695 feet, initial production 101 bbls. per hour; No. 3-B Pinkston, top pay 3,644 feet, total depth 3,689 feet, initial production 100 bbls. per hour. Brown and others' No. 2 Frederick, top pay 3,524 feet, total depth 3,615 feet, initial production 80 bbls. in four hours, pumping. Champlin & Bass' No. 3 Alford, top pay 3,768 feet, total depth 3,785 feet, initial production 65 bbls. per hour. Crabtree & Jeffries' No. 7 Giles, total depth 3,728 feet, initial production 75 bbls. in three hours. Denning and others' No. 4 Pinkston, top pay 3,550 feet, total depth 3,595 feet, initial production 20 bbls. in 30 minutes, pumping. East Shore Oil Co.'s No. 8 Fox, top pay 3,692 feet, total depth 3,703 feet, initial production 40 bbls. in 30 minutes. Fair, Inc.'s No. 12 Maxwell, top pay 3,711 feet, total depth 3,758 feet, initial production 75 bbls. per hour. F.H.E. Oil Co.'s No. 2-A Thompson, top pay 3,695 feet, total depth 3,745 feet, initial production 261 bbls. per hour. Humble Oil & Refining Co.'s No. 49-A Silvey, total depth 3,739 feet, initial production 70 bbls. per hour through one three-quarters inch choke; No. 12 Sneed, initial production 3,704 feet, total depth 3,735 feet, initial production 75 bbls. per hour; No. 7 Wooster, top pay 3,734 feet, total depth 3,776 feet, initial production 50 bbls. per hour.

International Oil Co.'s No. 4 Pinkston, total depth 3,675 feet, initial production 45 bbls. in 30 minutes. Jenkins Oil Corp.'s No. 7 Camp, total depth 3,700 feet, initial production 80 bbls. in two hours, swabbing. Magnolia Petroleum Co.'s No. 5 Bell, top pay 3,782 feet, total depth 3,811 feet, initial production 90 bbls. per hour. Marathon Oil Co.'s No. 19 Ledbetter, top pay 3,648 feet, total depth 3,655 feet, initial production 92 bbls. per hour; No. 14 Mason, top pay 3,618 feet, total depth 3,639 feet, initial production 44 bbls. per hour; No. 25 Moores, top pay 3,641 feet, total depth 3,730 feet, initial production 55 bbls. per hour.

Royalty Oil Co.'s No. 12 Harmon, total depth 3,819 feet, initial production 60 bbls. per hour. Rogers' No. 8 Maxwell, top pay 3,745 feet, total depth 3,768 feet, initial production 45 bbls. in 30 minutes. Sinclair Prairie Oil Co.'s No. 13 Wilson, top pay 3,635 feet, total depth 3,647 feet, initial production 40 bbls. in 15 minutes; No. 14 Wilson, top pay 3,651 feet, total depth 3,662 feet, initial production 35 bbls. in 15 minutes; No. 15 Wilson, top pay 3,658 feet, total depth 3,668 feet, initial production 30 bbls. in 15 minutes; No. 9 Wilson, top pay 3,620 feet, total depth 3,630 feet, initial production 30 bbls. in 30 minutes. Texas Co.'s No. 16 Bank of Overton, top pay 3,729 feet, total depth 3,769 feet, initial production 34 bbls. in 30 minutes. Tex-Jersey Oil Co.'s No. 2-B Keeling, top pay 3,753 feet, total depth 3,793 feet, initial production 50 bbls. per hour.

Smith County

Illinois Oil Co.'s No. 18 Mayfield, total depth 3,700 feet, initial production 90 bbls. per hour. Hamilton's No. 11 Gambrell, top pay 3,655 feet, total depth 3,675 feet, initial production 60 bbls. per hour. Hunt Production Co.'s No. 14-B Fair, top pay 3,725 feet, total depth 3,728 feet, initial production 27 bbls. in 15 minutes. Illinois Oil Co.'s No. 26 Mayfield, junked and abandoned 1,900 feet. McMurrey's No. 10 Turner, total depth 3,838 feet, initial production 60 bbls. per hour through open tubing. Pounds and others' No. 2 Jackson, top pay 3,822 feet, total depth 3,824 feet, initial production 60 bbls. per hour. Randall's No. 2 Wright, top pay 3,697 feet, total depth 3,705 feet, initial production 100 bbls. per hour. Salmar Oil Co.'s No. 1 Irion, top pay 3,762 feet, total depth 3,764 feet, initial production 30 bbls. in 45 minutes. Sells Petroleum Corp.'s No. 1 Moore, total depth 3,859 feet, initial production 20 bbls. in 15 minutes through one 1-inch choke.

Sinclair Prairie Oil Co.'s No. 11 Jarvis, top pay 3,707 feet, total depth 3,713 feet, initial production 20 bbls. in 15 minutes; No. 25 Wright, top pay 3,741 feet, total depth 3,745 feet, initial production 30 bbls. in 15 minutes; No. 27 Wright, top pay 3,735 feet, total depth 3,739 feet, initial production 30 bbls. in 15 minutes; No. 28 Wright, top pay 3,726 feet, total depth 3,729 feet, initial production 30 bbls. in 15 minutes; No. 17 Wright, top pay 3,671 feet, total depth 3,681 feet, initial production 30 bbls. in 15 minutes. Sun Oil Co.'s No. 4-B Benton, top pay 3,751 feet, total depth 3,753 feet, initial production 49 bbls. per hour; No. 10 Layne, top pay 3,670 feet, total depth 3,672 feet, initial production 43 bbls. per hour.

Upshur County

East Texas Production Co.'s No. 2 Fleet, total depth 3,602 feet, initial production 20 bbls. in 15 minutes. Gulf Production Co.'s No. 12 Ray, total depth 3,622 feet, initial production 20 bbls. per hour, pumping. Oils, Inc.'s No. 12 Sanders, top pay 3,590 feet, total depth 3,604 feet, initial production 17 bbls. in 15 minutes. Red Irons' Drilling Co.'s No. 1 Phillips, total depth 3,613 feet, initial production 50 bbls. per hour, swabbing. Russell's No. 1 Salter, top pay 3,766 feet, total depth 3,771 feet, initial production 50 bbls. per hour. Sun Oil Co.'s No. 7 Ramey, top pay 3,700 feet, total depth 3,722 feet, initial production 25 bbls. per hour. United East & West Oil Co.'s No. 3 Shelton, top pay 3,695 feet, total depth 3,708 feet, initial production 35 bbls. per hour. Trail Drilling Co.'s No. 1 Shelton, total depth 3,710 feet, initial production 40 bbls. per hour, swabbing.

MISCELLANEOUS COMPLETIONS

Anderson County

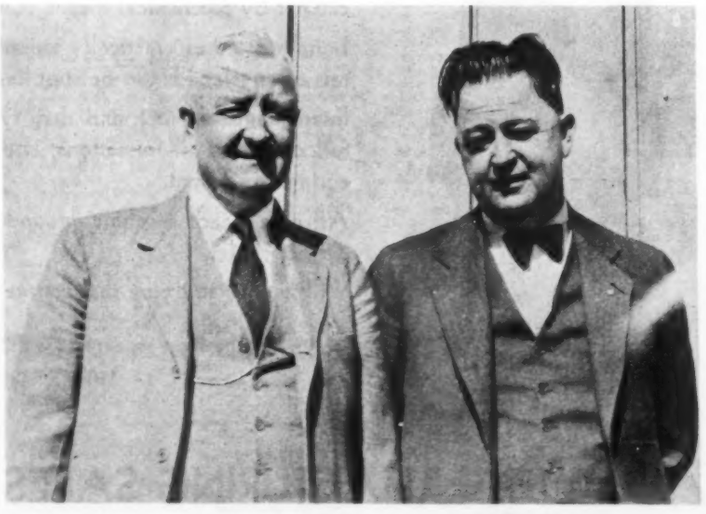
Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 16-A Wills, total depth 4,090 feet, initial production 68 bbls. in 12 hours through one one-eighth inch choke.

McLennan County

Humble Oil & Refining Co.'s No. 1 Heitmuller, dry and abandoned 1,266 feet, top Woodbine 575 feet, elevation 552 feet.

Van Zandt County

Petroleum Pipe Line & Storage Co.'s No. 4 McGee, total depth 1,268 feet, estimated 4 bbls. per day, 20 per cent water.



C. W. Hanley, zone agent, Fort Worth and Guy Sinclair, scout, Wichita Falls, Texas, both with Gulf Production Co. for past 17 years

West Texas Fields

(Continued from Page 41)

ing of oil this week from 4,245-58 feet, presumably in the Bend.

A. R. Eppenauer and Cunningham's No. 1 Tillar, in Section 1, C. C. Wyatt Survey, Reeves County, which struck an estimated 4,000,000 to 10,000,000 feet of gas around 3,673 feet, causing a blowout and redrilling job, is now drilling near the old total depth in the new hole. A few more feet of drilling should prove what the blowout amounts to.

There were 22 locations staked in the district this week. Only eight tests were completed, all producers.

WICHITA FALLS DISTRICT

There were three purchases made in the Wichita Falls district this week, involving producing properties. F.H.E. Oil Co. of Fort Worth purchased 50 acres of the J. H. and J. D. Hardegree lands in Section 2,410, T.E.&L. Survey, Archer County, including a 40-bbl. pumper that extended production 1,400 feet, producing from oil sand logged from 1,431-34 feet.

Consolidated Oil Co. of Wichita Falls purchased 40 acres from E. R. Perkins and others in Section 69, T.E.&L. Survey, Young County. This offsets a 20-bbl. wildcat well producing from sand logged at 1,184 to 1,195 feet, and which is 3,500 feet north and east of other small wells.

In Shackelford County, Jones and Roberts, of Albany, purchased the Carter Oil Co.'s west 40 acres of the east 60 of the south 80 of the SE Section 200, Block 10, E.T. Railway Survey, including a well that is making 6 bbls. per day, which is offset on the north by another small well.

Charles E. Knox and others, of Graham, have a producer in the making in the center of the W. B. Harrison 200-acre tract in the Felipe Jaime Survey, from sand logged at 2,757-59 feet. The Strawn sand was logged at 2,702-32 feet. This test swabbed 65 bbls. in six hours, and is 1 mile west of the Manning Pool, opening another Strawn sand pool.

Hayek Oil Co. (Snebold and others), developing another wildcat in No. 1 G. R. Davis, in Section 9, Block 13, T.&P. Survey, Shackelford County, 2 miles south, 3 miles east and 2 miles north of shallow producers. It topped the Morris and Buie pay horizon at 1,626 feet, showing for a producer. It is shut down after setting casing.

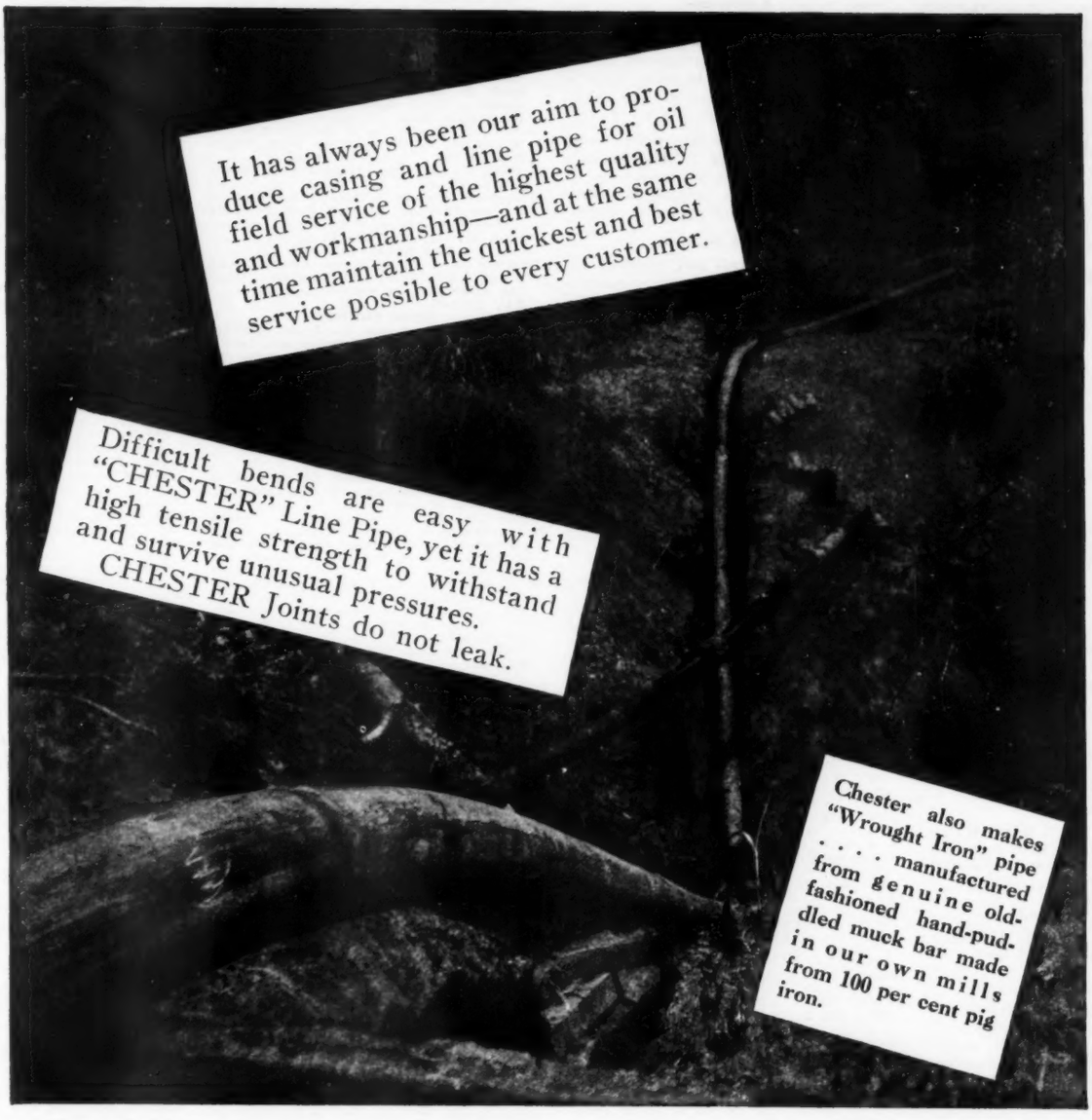
Another old producer in the Breckenridge Field has been successfully acidized. This well, Magnolia Petroleum Co.'s No. 7 J. C. Heatley, in Section 34, Block 5, H.&T.C. Survey, was completed May 5, 1931, in the Breckenridge lime logged at 3,145-3,200 feet, with total depth at 3,205 feet. Production had declined to no oil, 2 bbls. of salt water and 15,000 feet of gas per day, and being treated with 1,000 gallons of acid it made 40 bbls. of oil, 47 bbls. of water and gas increased to 18,500 feet per day.

There were 45 locations staked in the district this week and 20 tests completed. Production averaged 64,090 bbls. per day, an increase of 145 bbls. per day over the previous week.

PANHANDLE DISTRICT

There were 21 locations staked in the Panhandle district during the week, and 11 tests completed, one test in Wheeler County, Rafferty and others' No. 1 Seawright, being temporarily abandoned at 515 feet.

The wildcat of Anderson & Kerr on the Gideon Bell ranch, in Section 6, Block 13, H.&G.N. Survey, was given up as dry although it was estimated good for 3,000,000 feet of gas per day. This test had a showing of gas from 1,985-98 feet, making an estimated 2,000,000 feet at 2,135-45 feet. It encountered a showing of oil at 2,142 feet, with 100 feet of oil accumulating in the hole in eight hours at 2,173 feet. It was shot with 140 quarts from 2,137-71 feet and after being plugged back from a total depth


It has always been our aim to produce casing and line pipe for oil field service of the highest quality and workmanship—and at the same time maintain the quickest and best service possible to every customer.
Difficult bends are easy with "CHESTER" Line Pipe, yet it has a high tensile strength to withstand and survive unusual pressures. CHESTER Joints do not leak.
Chester also makes "Wrought Iron" pipe . . . . manufactured from genuine old-fashioned hand-puddled muck bar made in our own mills from 100 per cent pig iron.

SOUTH CHESTER TUBE COMPANY, Chester, Pa.

District Sales Managers

W. E. Gibson: 801 Columbia Bank Bldg., Pittsburgh, Pa.

H. A. Morse: 30 Church St., New York City, N. Y.

J. P. Cooney: 715-716 A. G. Bartlett Bldg., Los Angeles, Calif.

J. P. Steele: 603 Petroleum Bldg., Ft. Worth, Texas.

District Offices

J. D. Swartz: 1231 S. Evanston St., Tulsa, Okla.

E. L. Moseley: 2218 Mills St., Houston, Tex.

Burt S. Shafer, Southwest Representative: 4313 Fairfax Ave., Dallas, Tex., or 603 Petroleum Bldg., Ft. Worth, Tex.

District Warehouses

Houston, Texas; Thenard, Calif.; San Francisco, Calif.

Distributors

United Pipe & Supply Corp., Charleston, Danville, West Hamlin, W. Va.; Paintsville, Ashland, Allen, Prestonburg, Ky.

Prichard Supply Co., Mannington, W. Va.; Mather and Waynesburg, Pa.

LeValley, McLeod, Kinkaid Co., Inc., Elmira and Olean, N. Y.

Kane Supply Company, Kane, Lawrenceville, Brookville, Pa.

Bovaird & Co., Bradford, Pa.

Western Supply Co., Tulsa, and Oklahoma City, Okla.; Dallas, Houston, Pampa and Willow Springs, Tex.

Star Drilling Machine Co., 550 Clinton, St., Portland, Ore., and Akron, Ohio.

Stephen H. McCabe, 508 4th St., San Francisco, Calif.

Barde Steel Company, Seattle, Wash., and Portland, Ore.

Louisiana Supply Co., Sulphur, La., and Brimstone, La.

Dunigan Tool and Supply Co., Main Office, Breckenridge, Texas. Branch Stores, Willow Springs, Pampa, Turnertown, and McCamey, Texas, and Hobbs, N. M.

Okmulgee Supply Corp., Okmulgee, Okla.

Oil Field Equipment Co., San Antonio, Tex.

CHESTER

STEEL CASING AND LINE PIPE

of 2,213 feet, it was shot with another 20 quarts from 2,035-40 feet.

An interesting test may be put down by the Humble Oil & Refining Co. 2 miles north of its Logan discovery well in the Pedigo Survey, a short distance west of Pringle, and about 7 miles north of the Stinnett production in Hutchinson County. The Logan discovery was but a small well, but was interesting due to its location.

Production in the district averaged 55,970 bbls. per day from 2,300 wells during the week.

COMPLETIONS IN WEST TEXAS

Ector County

Black and others' No. 2 Connell, top pay 3,500 feet, total depth 3,646 feet, shot 310 quarts from 3,500-3,640 feet, initial production 342 bbls. per day.

Howard County

Pure Oil Co.'s No. 15 Chalk, top pay 1,671 feet, total depth 1,880 feet, initial production 15 bbls. per day, pumping.

Pecos County

Courvette Oil Co.'s No. 8 Tippett, top pay 490 feet, total depth 522 feet, initial production 130 bbls. per day pumping.

Upton County

Texas Pacific Coal & Oil Co.'s No. 5-B Sherk, total depth 2,453 feet, initial production 134 bbls. per day pumping, acidized. Stanolind Oil & Gas Co.'s No. 36 Burleson, total depth 2,040 feet, initial production 209 bbls. per day, acidized.

Ward County

Bradford & Green's No. 2 Carson, total depth 2,196 feet, shot 90 quarts from 2,136-96 feet, initial production 141 bbls. per day. Richardson's No. 18-B Johnson, total depth 2,590 feet, initial production 816 bbls. per day. California Co.'s No. 3 Cordon, total depth 2,557 feet, initial production 1,152 bbls. per day.

COMPLETIONS IN PANHANDLE

Carson County

Hagy and others' No. 3 Barnard, top pay 2,485 feet, total depth 2,731 feet, shot 300 quarts from 2,435-2,700 feet, initial production 37,000,000 feet of gas.

Collingsworth County

Anderson and Kerr's No. 1 Gideon Bell, dry and abandoned 2,213 feet.

Gray County

Skelly Oil Co.'s No. 1-B Saunders, top pay 2,780 feet, total depth 2,840 feet, shot 240 quarts from 2,765-2,842 feet, initial production 101 bbls. per day pumping. Stanolind Oil & Gas Co.'s No. 5 Jackson, top pay 3,068 feet, total depth 3,125 feet, initial production 41 bbls. per day pumping.

Hutchinson County

Phillips Petroleum Co.'s No. 4 Yake, top pay 2,881 feet, total depth 2,892 feet, initial production 41 bbls. oil and 20 bbls. water per day pumping. Stekoll Oil Producer's No. 6-B Whittenburg, top pay 2,980 feet, total depth 3,075 feet, shot 100 quarts from 2,987-3,075 feet, initial production 250 bbls. per day pumping.

Wheeler County

Rafferty and others' No. 1 Searight, temporarily abandoned 515 feet. Skelly Oil Co.'s No. 12 Derrick, top pay 2,498 feet, total depth 2,500 feet, initial production 132 bbls. per day pumping. Texas Co.'s No. 2 Bush, top pay 2,344 feet, total depth 2,540 feet, initial production 985 bbls. oil per day with 6,800,000 feet of gas; No. 4 Carwile, top pay 2,497 feet, total depth 2,533 feet, initial production 461 bbls. per day with 10,600,000 feet of gas. Underwood and others' No. 1 Roach, top pay 2,044 feet, total depth 2,139 feet, initial production 53,000,000 feet of gas.

TEXAS PRORATION HEARING

AUSTIN, Tex., Mar. 11.—The Texas Railroad Commission has set March 18 for its monthly statewide oil proration hearing. The allowable for this month is 1,028,000 bbls. daily.

Chicago Tank Car Gasoline Market Has Strengthened

(Continued from Page 37)

amounts. Gas oil prices are about unchanged.

Lubricants

Lubricating oils are revealing a little better tone, but buying is still rather limited. The price structure appears firmer. Motor oil business in the retail trade is picking up.

Wax

Wax continues to be in a rather weakened market position. Stocks remain heavy and apparently are increasing irregularly. Buying is nothing to reflect interest, and offerings are quite liberal.

Naphthas, Solvents

Most of the solvents and naphthas are marking time. Routine buying continues to account for the bulk of the trade. Prices are generally quoted unchanged, although shading is going on here and there.

Coke

There is no important change in petroleum coke. Prices hold firm, despite the season is becoming late.

East Central Texas Wildcats

(Continued from Page 42)

S and 2,400 ft. from W of D. Hill Sur., 3 miles NE of Longview.
S.D. 3,620 ft.

HENDERSON COUNTY

Campbell and Chamberlain's No. 1 R. Ansley, 1,724 ft. W and 300 ft. S of SE cor. of M. Matthews Sur., N. H. T. Thompson Sur.
S.D. 100 ft.

Crosby and Pulp's No. 1 M. T. Dobbs, NW cor. of east Dobbs 100-ac. tract, 4 miles E of Malahoff and S of Railroad. George Aldrick Sur.
T.D. 4,048 ft.; tested S.W.; C.O.

H. M. Wilson's No. 1 fee, 970 varas S of NE cor. of 942-ac. tract, 5 miles N of Malahoff.
Derrick.

HILL COUNTY

Humble O. & R. Co.'s No. 1 Holderman, 1,667 ft. from E and 750 ft. from N line of tract in C. Sullivant Sur., 1 mile W of Mt. Calm.
Elev. 657 ft.; drlg. 2,215 ft.

HOPKINS COUNTY

D. A. Hale et al's No. 1 L. M. Hall, 300 ft. from N and E lines of 70-ac. tract, 1 mile SE of Miller Gros. A. Caro Sur.
S.D. 1,485 ft.

HUNT COUNTY

Cauble & Thompson's No. 1 Reed, 330 ft. N of northerly NE cor. of C. B. Payne Sur., but in F. Thweatt Sur., 3 miles SE of Greenville.
Drlg. 3,148 ft.

Shawver et al's No. 1 Phillips, 1,200 ft. E of Winan's No. 1 Phillips, University Lands Sur., 2 miles W of Commerce.
Elev. 522 ft.; T.D. 1,617 ft.

KAUFMAN COUNTY

Germany et al's No. 1 Clark, 951 ft. N and 1,000 ft. W of tract, S. Eden Sur.
S.D. 1,728 ft.

Murry & Emerson's No. 1 G. W. Martin, 1,660 ft. from W and 250 ft. from N of 140-ac. tract, from W. L. C. Butler Sur., 2 miles NE of Kemp.
S.D. 27 ft.

L. P. Kean's No. 1 J. B. Hunter, R. Sowell Sur., 300 ft. from SW and 150 ft. from SE of 50-ac. tract, 4 miles S of Terrell.
Coring 3,048 ft.

LIMESTONE COUNTY

Chapman's No. 1 Hunt, 200 ft. from N and 450 ft. from W line 34.75-ac. tract, Israel Wood Sur., 3 miles NE of Kosse.
T.D. 3,617 ft.

C. F. Carter's No. 1 Dean, 660 ft. from SE and 330 ft. from SW lines of 75-ac. tract, P. Valella Sur., 3½ miles SW of Mexia.
Fishing 1,717 ft.

Crawford's No. 1 Vol DeLong.
T.D. 2,825 ft.; P.B. to 2,807 ft.; blowing little gas and wtr.

Doughtry et al's No. 1 S. Welch, 150 ft. from NW and 900 ft. from NE of 77.64-acre tract in A. Varilla Sur., 4 miles W of Groesbeck.
Drlg. 2,725 ft.

Magnolia Pet. Co.'s No. 28 Boyd, 300 ft. NE of No. 26 (Wortham Field).
Rigged up.

Pure Oil Co.'s No. 6-S Ross, 1,500 ft. from N and 400 ft. from E of H. Ross Sur. (Mexia Field).
Drlg. 675 ft.

NACOGDOCHES COUNTY

Murray Oil Co.'s No. 1 C. B. Watkins, 150 ft. from N line and 330 ft. from NW lines of 160-ac. tract, 3 miles S of Caro, H. Y. Bailey Sur.
Elev. 457 ft.; top Pecan 3,380 ft.; drlg. 3,440 ft.

L. & G. Oil Co.'s No. 1 Z. Ramblin, 900 ft. N and 330 ft. W of SE cor. of tract and survey, J. Simpson Sur., 12 miles NE of Nacogdoches.
S.D. 3,260 ft.

NAVARRO COUNTY

Bennett Brothers' No. 1 T. E. Stewart, 150 ft. from NE line of lease, 10 miles SW of Corsicana, Wm. R. Bowen Sur.
S.D. 1,136 ft.

S. B. Codding et al's No. 1 Lela Kent, 450 ft. from S line and center of N and S lines of lease, 3 miles NE of Chatfield, C. B. Emmons Sur.
S.D. 1,340 ft.

W. J. Keeling et al's No. 1 J. F. Rushing, 484 ft. from N line and 150 ft. from W line of 184-ac. tract, 6 miles SW of Richardson, Henry Ford Sur.
S.D. 2,380 ft.

McCullough et al's No. 1 C. Berry, 330 ft. from SE cor. of 35-acre tract, 1 mile W of Dawson, William Moss Sur.
S.D. 625 ft.

McGlothlin's No. 1 Dobbin, 150 ft. W and midway from N and S lines of 138-ac. tract, E. Lowry Sur., 3 miles N of Corsicana.
Drlg. 1,570 ft.

McGlothlin et al's No. 1 Barnett, 1,230 ft. N and 150 ft. W of 355-ac. tract, Elisha Powers Sur.
Elev., 345 ft.; top Woodbine 3,520 ft.; drlg. 3,770 ft.

Wiggins et al's No. 1 Donoho, 450 ft. from N and 1,101 ft. from E lines in John Couple Sur., SW of Corsicana.
Elev. 467 ft.; drlg. 865 ft.

RED RIVER COUNTY

Dinger's No. 1 W. T. Norris, 1,000 ft. from S and 1,900 ft. from W of 400-ac. tract Jos. Guest Sur., 1 mile S of Detroit.
S.D. 1,250 ft.

RUSK COUNTY

George Hudson et al's No. 3 Jeff Phillips 150 ft. from N line of survey and 700 ft from W line of 100-ac. tract, 4 miles SE of Minder N. Villaria Sur.
S.D. 3,673 ft.

Ben Lamb's No. 1 H. Leath, 330 ft. out of NW cor. of 185-ac. tract in L. J. Dooley
S.D. 3,820 ft.; oil show; to test.

Richardson's No. 1 Wood.
Derrick.

SMITH COUNTY

Cloud et al's No. 1 Dendall, 330 ft. from S and W of 55-ac. tract, J. Williams Sur., 3 miles E of Van Field.
S.D. 1,340 ft.

Dr. Garland's No. 1 Bartlett, 330 ft. out of SE cor. of R. G. Steeart Sur., 1 mile SE of Jamestown, ½ mile E of Cloud.
Drlg. 1,780 ft.

W. R. Harrison's No. 1 Rushing, J. Herring Sur. (O.W.D.D.).
T.D. 4,673 ft.; to test again.

Peveto-Howse et al's No. 1 F. J. Watson, 150 ft. out of NW cor. of 75-ac. tract, Oliver Anderson Sur.
Material.

TITUS COUNTY

S. Rotondi's No. 1 Lillianstun, 1,200 ft. E from NW cor. of J. Bodt Sur. and 330 ft. N, but in W. H. Crawford Sur., 5 miles NE of Talco.
Derrick.

VAN ZANDT COUNTY

Delcambre et al's No. 2 Crim, 400 ft. from S and 150 from E lines, Nacogdoches Co. School Lands.
T.D. 1,327 ft.; C.O.

Green and Winn's No. 1 Eaton, 330 ft. out of most westerly SW cor. of J. Wilson Sur., 2 miles SE of Martin.
Location.

J. Beren et al's No. 1 Bryant, 483 ft. N of same operator's dry hole, Nacogdoches County School Land Sur.
S.D. 1,325 ft.

Beren et al's No. 2 Palmer, 544 ft. from S and 636 ft. from E of 69.5-ac. tract, Nacogdoches County School Land.
T.D. 1,324 ft.; to test.

Miller et al's No. 1 J. M. Palmer, 150 ft. from S and E lines of 69-ac. tract, Nacogdoches County School Land Sur.
S.D. 1,188 ft.

M. Rouch et al's No. 1 Bearden & Palmer 150 ft. out of SE cor. of 61-ac. tract, Nacogdoches C.S.L.
S.D. 1,227 ft.

WOOD COUNTY

Hill & Hill's No. 1 J. J. Phillips, 330 ft. from N and E, James M. Moore Sur., 5 miles S of Winnsboro.
Location.

West Texas Wildcats

(Continued from Page 41)

660 ft. from E line of Sec. 21, Blk. 97, P.S.L. Sur.
S.D. 3,145 ft.; show oil 2,107 ft.

Wood et al's No. 1 Hall, 350 ft. from S and 88 ft. from E, Sec. 13, Blk. 54½, 16 miles N. of Van Horn, P.S.L. Sur.
S.D. 246 ft.

DAWSON COUNTY

Adams & Turner's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk M, E.L.R.R. Sur.
Elev. 3,078 ft.; S.D. 4,080 ft.; sulphur water at 4,060 ft.

ECTOR COUNTY

Atlantic Oil Prod. Co.'s No. 1 T. P. Land Trust, 440 ft. from N and W of SE Sec. 11, Blk. 43, Twp. 1s. T.&P. Sur.
T.D. 4,391 ft.; plugged back to 4,300 ft.; 2,000 ft. water in hole.

Callahan et al's No. 1 Connell, 330 ft. from N and 990 ft. from W, Sec. 10, Blk. 30, Twp. 1s.
Drlg. 1,660 ft.

Empire Gas & Fuel Co.'s No. 1 Cummins, 440 ft. from S and E, Sec. 10, Blk. 45, Twp. 1n, T.&P. Sur.
Rigged up.
Drlg. 510 ft.

G. Farley's No. 1 Connell, 990 ft. from S and 330 ft. from E, Sec. 11, Blk. B-16, P.S.L. Sur.
Drlg. 3,512 ft.

International Pet. Corp.'s No. 1 Cowden, 660 ft. from S and E, Sec. 25, Blk. 44, Twp. 2s, T.&P. Sur.
Drlg. 2,022 ft.

Gulf Prod. Co.'s No. 1 Goldsmith, C of NW, Sec. 10, Blk. 44, Twp. 1s, T.&P. Sur.
Drlg. 1,330 ft.

Landreth Prod. Co.'s No. 1 Clarence Scherbauer, 660 ft. from S and E lines of Sec. 20, Blk. 44, Twp. 1n, T.&P. Sur.
T.D. 4,236 ft.; plugged back to 4,186 ft., S.D.

Landreth Prod. Co.'s No. 1 Cowden Heirs, 440 ft. from S and W, Sec. 18, Blk. 44, Twp. 1n, T.&P. Sur.
Rigged up standard tools.

Penrose et al's No. 1 Kloh & Rumsey, 2,310 ft. from S and E, Sec. 31, Blk. 45, Twp. 1s, T.&P. Sur.
Elev. 3,154 ft.; drlg. 2,768 ft.

Phillips Pet. Co.'s No. 1 Scharbauer, 990 ft. from S and 330 ft. from E, Sec. 16, Blk. B-16.
Drlg. 3,523 ft.

EL PASO COUNTY

Mesa Oil Co.'s No. 1 Coronado Valley.
S.D. 1,415 ft.

Tri-State Oil Co.'s No. 1 Kinkel, 190 ft. from N and 550 ft. from E, Sec. 237, A.T.&S.F Sur.
Standard tools.

FISHER COUNTY

Merry Bros. and Perrini's No. 1 Howard, 1,320 ft. from N and 660 ft. from E, Sec. 18c, Blk. 2, H.&T.C. Sur.
T.P. 3,665 ft.; T.D. 3,679 ft.; plugged back 3,672 ft.; plugged to 3,674 ft.; pumped 160 bbls. oil and 140 bbls. water first 14 hrs.

GARZA COUNTY

N. L. Richards' No. 1 Sullivan, 330 ft. from N and W, Sec. 3, Blk. 5, K. Aycock Sur. Location.

GLASSCOCK COUNTY

Capitan O. Co.'s No. 1 Gilliam, 2,310 ft. from S and 1,960 ft. from E, Sec. 21, Blk. 35, Twp. 2s, T.&P. Sur.
Elev. 2,610 ft.; drlg. 1,380 ft.

John I. Moore et al's No. 1 McDowell, 2,310 ft. from S and 2,397 ft. from E, Sec. 21, Blk. 34, Twp. 2s, T.&P. Sur.
Drlg. 1,212 ft.

John I. Moore et al's No. 1 J. S. McDowell, 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2s, T.&P Sur.
Top lime 9,520 ft. (Pennsylvanian, younger than the Bend) oil and gas show 9,484 ft.; T.D. 9,471 ft.; makes oil every half hour when circulated to prevent blowout. Made Schlumberger test; running csg.

HOWARD COUNTY

Dorn et al's No. 1 Kloh, 330 ft. from S and E, Sec. 45, Blk. 30, Twp. 1n, T.&P. Sur.
Elev. 2,287 ft.; drlg. 1,536 ft.

C. Henson et al's No. 1 B. Scott, 330 ft. from N and 1,650 ft. from E, Sec. 92, Blk. 29, T.&P. Sur.
S.D. 1,220 ft.

Slagel's No. 1 Foster, 990 ft. from S and 330 ft. from W, Sec. 43, Blk. 29.
Drlg. 476 ft.

IRION COUNTY

Lowe, Delaney et al's No. 5 Nutt, 490 ft. from N and E of SW¼ Sur. 6, Gonzales County School Lands.
Fsg. 808 ft.

JEFF DAVIS COUNTY

C. M. Joiner's No. 1 Jones & Coffield, 770 ft. from N and 1,322 ft. from E, Sec. 8, Blk. 3, H.&T.C. Sur.
Drlg. 730 ft.

JONES COUNTY

Campbell et al's No. 1 Rowell, in E half of W half, Sec. 6, T.&P. Sur.
S.D. 900 ft.

Campbell et al's No. 1 Enevill, 1,400 ft. from N and 270 ft. from W, Sec. 2, M.E.&P. Sur., ¼ mile S of Anson.
S.D. 2,050 ft.

Cal-Tex Oil Co.'s No. 1 Smith, 1,400 ft. from S and 2,000 ft. from E, Sec. 25, Blk. 19, T.&P. Sur.
Drlg. 1,737 ft.

Fondran Prod. Co.'s No. 1 S. R. Cox Jr., 200 ft. from S and 3,700 ft. from E, Sec. 74, Blk. 14, T.&P. Sur.
Drlg. 655 ft.

Dr. C. E. Johnson's No. 1 Young, 1,800 ft. from N and 750 ft. from W of SE 290 acres of B. Travenio Sur.
Drlg. 1,530 ft.

Owen et al's No. 1 Johnson & Dunwoody, 3,750 ft. from S and 330 ft. from W, Sec. 6, Blk. 17, T.&P. Sur.
Spudded and S.D.

Richards et al's No. 1 Ransom, 200 ft. from N and E, Sec. 244, B. M. Clopton Sur.
S.D. 750 ft.

T. O. Shappell's No. 1 Stevenson, 150 ft. from N and 2,411 ft. from W, Sec. 7, Blk. 16, T.&P. Sur., 7 mi. SW of Hawley.
Machine.

T. K. Simmons' No. 1 T. M. Harrell, 200 ft. from S and 1,050 ft. from E of Sec. 7, Orphan Asylum Lands.
Drlg. 1,000 ft.

LOVING COUNTY

D. C. Evans' No. 1 W. D. Johnson, 2,310 ft. from N and 1,650 ft. from W, Sec. 13, Blk. 57, Twp. 1, T.&P. Sur.
S.D. 2,030 ft.

Mason Oil Co.'s No. 1 Kyle, 1,980 ft. from S and E, Sec. 22, Blk. 55, Twp. 1, T.&P. Sur.
Drlg. 448 ft.

LYNN COUNTY

Hart Oil Co.'s No. 1 Edwards, 220 ft. from N and 200 ft. from W of SE Sec. 29, L.&S.V. Sur.
Elev. 3,112 ft.; S.D. 3,954 ft.

MARTIN COUNTY

Wright & Scott's No. 1 Flannigan, 330 ft. N and E, Sec. 22, Blk. 37, Twp. 1s, T.&P. Sur.
S.D. 100 ft.

MITCHELL COUNTY

Sawtell & Grueber's No. 1 Morrison
S.D. 1,020 ft.

McCULLOCH COUNTY

Cardinal Oil Co.'s No. 4 White Baker, 270 ft. from N and 1,963 ft. from E, Dewey Sur.
Location.

Cardinal Oil Co.'s No. 3 White Baker, 1,202 ft. from N and 1,030 ft. from E, Sec. 2,

W. Dewey Sur.
Drlg. 1,250 ft.
Goggins' No. 1 Craven Estate, 1,390 ft. from S and 2,480 ft. from W, Gus Dreiss Sur.
Drlg. 667 ft.
Honea et al's No. 1 Cox, 450 ft. from S and 150 ft. from E, David Pope Sur.
T.D. 805 ft.; underreaming csg.
Miller et al's No. 1 Black, 160 ft. from N and 175 ft. from E, Sur. 290, H.&T.C. Sur.. 3 miles E of Placid.
Drlg. 628 ft.
Geo. Poulter et al's No. 1 J. R. Hall, 2,600 ft. from SE and 200 ft. from E, Sec. 192, State Sur., 12½ miles N of Brady.
Drlg. 440 ft.
Skaggs & Brewer's No. 1 Dunn, 190 ft. from S and 570 ft. from E, Sec. 951, T. L. Hartig Sur.
Drlg. 529 ft.

PECOS COUNTY

Cardinal Oil Co.'s No. 1 White & Baker, 2,310 ft. from S and 330 ft. from W, Sec. 51, Blk. Z, T.C. Sur.
S.D. 827 ft.
Gulf Prod. Co.'s No. 4 White & Baker, 2,310 ft. from N and 330 ft. from E, Sec. 48, Blk. Z, T.C. Sur.
T.D. 1,890 ft.; to abandon; show oil 1,858-64 ft.
International Pet. Co.'s No. 1 White & Baker, 2,310 ft. from S and 330 ft. from E, Sec. 4, Blk. 207, T.C. Ry. Sur.
Set csg. 106 ft.
Messenger's No. 1 Dr. Sibley, 4,930 ft. from S and 990 ft. from W, Sec. 6, Blk. 9, H.&G.N. Sur.
Location.
Trans-Tex. Oil Co.'s No. 1 Caldwell, 330 ft from E line and 330 ft. from S line of Sec 27, Blk. 40, Twp. 9, T.&P. Sur.
S.D. 1,680 ft. for csg.

REAGAN COUNTY

Byrd-Frost Inc.'s No. 1 Boyd, 1,320 ft. from S and E of Sec. 6, Blk. E, L.V.S.&V. Sur.
S.D. 10 ft.
Dobbs' No. 1 Friend, 2,310 ft. from S and 660 ft. from W of Blk. 3, Wm. Allen Sur.. 3 or 4 miles S of Big Lake.
Drlg. 1,100 ft.
Skelly Oil Co.'s No. 1-D H. S. Grayson, 1,980 ft. from N line and 660 ft. from W line of Sec. 33, Blk. 8, University Land Sur.
Drlg. 9,575 ft.

REEVES COUNTY

J. E. Cunningham's No. 1 Altman, 2,810 ft. from N line and 1,980 ft. from E line of Sec. 1, C. C. Wyatt Sur.
T.D. 3,673 ft.; drlg. 3,368 ft. in new hole.
Herbert Oil Co.'s No. 1 Williams & Walker, 5,280 ft. from S and 1,320 ft. from E. Sec 17, Blk. 6, H.&G.N. Sur.
Spudded and S.D.
K. Slack et al's No. 1 Reeves, 1,980 ft. from N and W, Sec. 20, Blk. 56, P.S.L. Sur.
Location.

RUNNELS COUNTY

Dennis et al's No. 1 Wash, 650 ft. from N and 660 ft. from E of W half, Sec. 123, E.T.R.R. Sur.
Spudded and S.D.
Melrose Oil Co.'s No. 1 L. P. Woods, 150 ft. from NE lines and 3,475 ft. from W line of survey, Willett Holmes Sur. No 100.
S.D. 2,507 ft.
R. Wells' No. 1 James, 396 ft. from N and 330 ft. from E of James tract in Sec. 16, D. Diaz Sur.
S.D. 1,100 ft.

SCHLEICHER COUNTY

John M. Cooper et al's No. 1 Bert Page 1,290 ft. from N line, 1,470 ft. from W line of Sec. 46, Blk. L, G.H.&S.A. Sur.
T.D. 5,987 ft.; to test below 2 packers.
W. C. Proctor et al's No. 1 Judkins & Spencer, 1,920 ft. from S and W of W. W Russell grant.
Moved off tools.

SCURRY COUNTY

Coffield & Guthrie's No. 1 Holliday, 2,310 ft. from N and 330 ft. from W, Sec. 126 Blk. 97, H.&T.C. Sur.
Plugged back to 2,075 ft.; cleaning out; T.D. 2,967 ft.
McLaughlin's No. 1 Allen, 1,331 ft. from N and 1,338 ft. from E. Sec. 298, Blk. 97 S.D. 485 ft.

STERLING COUNTY

Merry Bros. & Perrini's No. 1 Standaberry 1,980 ft. from N and E. Sec. 20, Blk 36 W.&N.W. Sur
T.D. 2,829 ft.; to set csg.

STONEWALL COUNTY

Merry Bros. and Perrini et al's No. 1 Williams, C SW of SW Sec. 6, Blk. C, A.B &M. Sur.
S.D. 3,000 ft.

SUTTON COUNTY

Texas et al's No. 1 Mower, 1,980 ft. from S and W of Sec. 39 Blk 5, T.W.&N.G. Sur
S.D. 4,270 ft.; slight show oil at 4,245-58 ft.

TAYLOR COUNTY

Dunnigan Bros. et al's No. 3 Hunter, 225 ft. from S and 750 ft. from W. Sub. 14 Willis Sur.
T.P. 2,378 ft.; T.D. 2,425 ft.; swabbing 4 to 5 bbls. per day.
Eastland Oil Co.'s No. 1 Tittle, 660 ft. from N and W, Sec. 37, Blk. 19, T.&P. Sur.. 1 mile NE of Trent.
Machine

TERRELL COUNTY

W. A. Sudderth's No. 1 Phelps, 2,157 ft. from N line and 2,482 ft. from the W line of Sec. 5, Blk. 4-A, G. W. Turley Sur.
S.D. 5,635 ft.

TOM GREEN COUNTY

J. F. Jacobs et al's No. 1 De Long, 1,320 ft. from N and 2,640 ft. from E, George Smith Sur. No. 1,825 ft.
Drlg. 240 ft.

UPTON COUNTY

Baldridge Oil Co.'s No. 1 S. Peck, 440 ft from S and E. Sec. 29, Blk. 41, Twp. 4s. T.&P. Sur.
Rigged up standard tools.
Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft from S and 660 ft. from W, Sec. 197, Blk F, C.C.S.D.&R.G.N.G. Sur.
Drlg. 11,510 ft.
Humble Oil & Ref. Co.'s No. 1 Pollock, C of NW, Sec. 4, Blk. M.
Elev. 2,758 ft.; T.D. 2,359 ft.; straightening hole.
King Mountain Pet. Co.'s No. 1 Sherk, 330 ft. from S and W, Sec. 29, Blk. 1, M.K.&T. Sur.
S.D. 1,340 ft.
Williams & Williams Drlg. Co.'s No. 1 Robbins, 1,600 ft. from S and 1,900 ft. from E, Sec. 4, G.C.&S.F. Sur.
Drlg. 2,066 ft.

WARD COUNTY

Alexander's No. 1 Richter, 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 21, Blk. 34, H.&T.C. Sur.
Drlg. 1,880 ft.
Atlantic Oil Prod. Co.'s No. 1 Monroe, 561 ft. SW and 350 ft. SE of E cor. of J. C. Russell Sur. No. 3, but in Sec. 2, J. V. Border's Sur.
T.D. 2,451 ft.; shot and cleaning out.
Bradford et al's No. 1 E. R. Allen, 660 ft from NW line and 551 ft. from NE line Sec. 11, H.&T.C. Sur.
S.D. 760 ft.
Caprito's No. 1 Hardage & Wilson, 2,310 ft. from NE and 990 ft. from SE, Sec. 11 Blk. 34, H.&T.C. Sur.
Material.
Cook Drlg. Co.'s No. 1 Wood, 330 ft. from NW and SW, Sec. 5, W. F. Stewart Sur
T.D. 2,548 ft.
Eastland Oil Co.'s No. 1 Richter, 2,310 ft. from NW and 330 ft. from SW of Sec. 23, Blk. 34, H.&T.C. Sur.
Drlg. 910 ft.
Gulf Prod. Co.'s No. 52 O'Brien.
T.D. 3,100 ft.
Gulf Prod. Co.'s No. 55 O'Brien, 1,650 ft. N and 330 ft. from E, Sec. 18, Blk. F.
Drlg. 1,315 ft.
Gulf Prod. Co.'s No. 56 O'Brien, 2,310 ft from N and 330 ft. from E, Sec. 18, Blk F. Rigged up standard tools.
Magnolia Pet. Co.'s No. 2 Sealy Estate, 2,310 ft. from S and 330 ft. from W, Sec. 43, Blk. F.
Derrick.
Postellio & Caprito's No. 1 Purcell, 330 ft from NE and 990 ft. from NW, Sec. 17 Blk. 34, H.&T.C. Sur.
S.D. 2,775 ft.
Rector Oil Co.'s No. 1 Monroe, 660 ft. from SE and NE, Sec. 2, Blk. 1, W.&N.W. Sur
Drlg. 1,980 ft.
Sageland Oil Corp.'s No. 2 Pure-Bennett 1,650 ft. from NW and 2,310 ft. from SW S.D. 220 ft.
Jerry Sines' No. 1 Brown, 330 ft. from NW and NE, Sec. 13, Blk. 5, H.&T.C. Sur.
Drlg. 170 ft.
Jerry Simes et al's No. 1 Miller, 330 ft. from N and NW of E cor. of Sec. 19, but in Sec. 20, Blk. 32, H.&T.C. Sur.
Rigged up.
West Texas O. & R. Co.'s No. 1-C University, 330 ft. from N and E, Sec. 6, Blk. 16 S.D. 1,578 ft.

WINKLER COUNTY

Barnsdall Oil Co.'s No. 1 Brown & Aultman, 2,310 ft. from N and W, Sec. 6, Blk. 5, P.S.L. Sur.
Drlg. 2,160 ft.
Green Prod. Co.'s No. 1 J. F. Cross, 330 ft. from N and 2,310 ft. from W, Sec. 4, Blk. B-10, P.S.L. Sur.
Material.
Harry Adams' No. 2 Scarborough, 990 ft from N line and 990 ft. from W line, Sec 2, Blk. 77, P.S.L. Sur.
Location.
Humble Oil & Ref. Co.'s No. 2-A Walton. 660 ft. from S and W, Sec. 48, Blk. 26. Derrick.
Jeffries et al's No. 1 Brown & Aitman 2,310 ft. from S and W, Sec. 6, Blk. B-5 T.D. 3,200 ft.; pulling tubing.
Dr. Jeffries et al's No. 1 Underwood, 330 ft from S and 2,310 ft. from E. Sec. 26, Blk B-3.
S.D. 800 ft.
Magnolia Pet. Co.'s No. 6 Watton, 330 ft. from S and 1,650 ft. from W, Sec. 1, Blk. 26, P.S.L. Sur.
Drlg. 2,498 ft.
J. C. Maxwell's No. 1 Clapp, 2,310 ft. from N and 330 ft. from E. Sec. 27, Blk. 26, P.S.L. Sur.
T.D. 3,487 ft.; plugged back to 3,200 ft.; shot; to acidize.
Maxwell & Atlantic's No. 2 Daugherty, 990 ft. from S and 330 ft. from E, Sec. 11, Blk. 26, P.S.L. Sur.
Drlg. 200 ft.
Mid-Continent Pet. Corp.'s No. 2 Howe, 1,650 ft. from N and 330 ft. from W, Sec. 12 Blk. 26.
T.D. 2,989 ft.; flowing 20 bbls. day through csg.
Richardson's No. 1 Walton, 1,010 ft. from S and 330 ft. from W, Sec. 1, Blk. B-3.
S.D. 2,070 ft.
Sid Richardson's No. 1 Hill, 1,980 ft. from E line, 660 ft. from S line. Sec. 18, Blk B-11, P.S.L. Sur.
T.D. 3,846 ft.; P.B. to 3,155 ft.; flowing 15 bbls. day.
Sayre Oil Co.'s No. 1 Leck, 330 ft. from S and E. Sec. 2, Blk. 26, P.S.L. Sur.
Fsg. 2,749 ft.
Sayre Oil Co.'s No. 2 Howe, 330 ft. from N and W, Sec. 12, Blk. 26, P.S.L. Sur.
Drlg. 100 ft.
Skelly Oil Co.'s No. 2 Halley, 1,320 ft. from N and 2,200 ft. from E, Sec. 25, Blk. B-11 P.S.L. Sur.
S.D. 3,090 ft.
Sinclair Oil Co.'s No. 1 Lowett, 330 ft. from N and E, Sec. 36, Blk. 26, P.S.L. Sur.
Drlg. 306 ft.
Sun Oil Co.'s No. 2 Halley, 2,200 ft. from N and 440 ft. from E, Sec. 24, Blk. B-12. P.S.L. Sur.
S.D. 2,653 ft.
Texas Pacific Coal & Oil Co.'s No. 2 Daugherty, 1,650 ft. from S and 330 ft. from E, Sec. 2, Blk. 26, P.S.L. Survey.
Standard derrick.

Southwest Texas Wildcats

(Continued from Page 39)

Downey & Morton's No. 1 Daskom, 450 ft. from E line, 55 ft. from S line of Blk 34, Por. 45.
S.D. 3,040 ft.
Nutex Oil Co.'s (Hankamer & Camp) No. 1 F. Rapp 511-ac. tract, Laguna Seca League. Standing 125 ft.
E. A. Showers' No. 1 Brocks & Showers, 660 ft. from N and E lines of Lot 11, Blk. 18, Porcion 79.
Drlg. 1,000 ft.
Union Sulphur Co.'s No. 3 American Rio Grande Land & Irrig. Co., 400 ft. from S line, 600 ft. from E line of Lot 2,082, Blk. 82, 200 ft. W of No. 2.
Drlg. 6,630 ft.

JIM HOGG COUNTY

French Oil Co.'s No. 1 Pena, 660 ft. from E line on lines of Blk. 41-42, Share 3, Sur. 574.
Laying wtr. line.
Miller & Pippin's No. 1 Yeager, 527 ft. S line, 150 ft. E line of Blk. 6, Sur. 20.
Drlg. 1,750 ft.
A. Edmiston's (G. H. Von Rossun) (John D. Norwood) No. 1 C. W. Hellen, 330 ft. N and W lines, Sur. 48.
T.D. 1,338 ft.; deepening.
Sun Oil Co.'s No. 1 S. K. East, 660 ft. from N and W lines, Blk. 126, La Novia de Santeo Domingo grant.
Drlg. 3,150 ft.

JIM WELLS COUNTY

P. M. Evans et al's No. 1 Cristler, C of Sec. 41, I.&G.N. Sur.
Building derrick.
Joe Lundin's No. 1 T. C. Hewitt, SE cor. Sec. 51, McKinney & Williams Sur.
Rigging up.
Maer & Shira's No. 1 Schaeffer, 1,320 ft. E of NW cor. center of Blk. 15, of subdivision of ranch.
Derrick.

KARNES COUNTY

H. A. Pagenkopf's No. 1 T. J. McAda, 330 ft. from NE and NW lines of Tract C, Martinez Sur.
Derrick.
R. G. Tonkin's No. 1 Miss Olive Henke, 2,640 ft. from SW cor. N along W line thence at R/A 330 ft., Seguin grant.
T.D. 2,830 ft.; P.B. trying to run csg.

KERR COUNTY

Meteor Oil Co.'s (Edminton & Walker) No. 1 Whitworth, 1,160 ft. from S line and 1,333 ft. from E line of Sec. 1,439, of the H.E.&W.T. Sur.
Drlg. 950 ft.
Jeff Love and Eastland Oil Co.'s No. 5-E Jeff Love, 1,500 ft. SE of No. 1 and 1,531 ft. from SE cor. and 300 ft. from N line of Sec. 1,591.
Drlg. 4,010 ft.

LEE COUNTY

Jas. E. Pederson's No. 1 Turner, 1,860 ft from N line, 150 ft. from E line of tract David Hudson Sur.
T.D. 6,560 ft.; P.B. to 6,150 ft.; trying to bail.
Stowe & Schariach's No. 1 Otto.
T.D. 1,700 ft.; standing; moving in new boiler to deepen to Edwards lime.

LIVE OAK COUNTY

Arthur, Brunson & Hall's No. 1 W. P. Howard, 150 ft. from W line, 3,400 ft from N line of 200-ac. tract, in B. Ayers Sur.
Drlg. 1,359 ft.
Baugh & McMillan's No. 1 Walton & Campbell, 1,500 ft. NE line and SE line of D. R. Fant Sur.
Drlg. 2,900 ft.
California Co.'s No. 1 Blankenship, 466 ft from SW line, 2,000 ft. from SE line, A. A. Dunn Sur.
Drlg. 4,200 ft.
Henderson Coquat's (Luling O. & G. Co.) No. 1 Rex, C of SW¼ of G.H.&H. Sur.. Abst. 197, 3 miles S of Mileska.
Drlg. 850 ft.
Smith & Story's No. 1 G. T. Frederick, 1,650 ft. from railroad, 330 ft. from southern N line of 420-ac., Curry Sur.
Testing 4,271 ft.

MAVERICK COUNTY

Escher & Andrews' No. 1 Mathews, NW cor. of B. C. Flowers Sur.
Standing 615 ft.

McMULLEN COUNTY

Howard & Claunch's No. 3 Claunch, 1,800 ft. from SE line, 1,200 ft. from SW line of M. Hely Sur.
S.D. 490 ft.
Points et al's No. 1 Fahler, 2,000 ft. from S line, 2,500 ft. from W line of 1,000-ac tract, Pittuck Sur.
Drlg. 603 ft.
Witherspoon Oil Co.'s No. 1 Lark, Blk. 110, Scrugham Sur.
Drlg. 629 ft.

MEDINA COUNTY

John Lind's No. 1 Jungman, 2,050 ft. from N line, 550 ft. from W line, J. Degat Sur.
Moving in material.
Scoggins & Sanders' No. 1 L. W. Burrell, 150 ft. from E line, 1,750 ft. from N line of M. E. Gage Sur. 396.
S.D. 1,880 ft.

MILAM COUNTY

Mincrept Mfg. Co.'s No. 1 Dymke, 600 ft. from W line, 150 ft. from N line of 50-ac. tract, Allen Sur.
Drlg. 425 ft.
H. V. Pedersen's No. 1 Sandow (formerly C. F. Drake et al's No. 1 Standard Coal Co.) 970 ft. SW line, 1,700 ft. SE line of G. Johnson Sur.
Rigged up to resume drlg. at 1,575 ft.; no report.
Frank W. Kellar, Inc.'s No. 1 A. L. Lucas, 1,980 ft. from N line, 400 ft. from E line of 178-ac. tract, J. Real Sur.
T.D. 1,500 ft.; no report.
Second Natl. Bank's No. 2 Ward, 700 ft. from SE line, 2,598 ft. from SW line, L. Taylor Sur.
S.D. 60 ft.

NUECES COUNTY

Magnolia Pet. Co.'s No. 1 S. Page, 190.8 ft. from W line, 196 ft. from N line of 75-ac. tract in Kinney Sur. No. 586, Sec. 8.
Drlg. 4,570 ft.

REAL COUNTY

H. J. Heartwell et al's No. 2 L. J. Maby, 694 ft. from W line and 2,153 ft. from S line of A.B.&M. Sur. No. 176.
T.D. 2,837 ft.; S.D.

SAN PATRICIO COUNTY

Allied Minerals' No. 1-A Ramsey, 466 ft. E, 220 ft. N of SW cor. of the North B. Giddings Sur. on a 1,000-ac. tract.
Sandy shale 2,642 ft.; moving in heavier rig; S.D.
Plymouth Oil Co.'s No. 1 Welder, 10 miles NW Sinton.
Set surface csg.
Stanolind O. & G. Co.'s No. 1 J. J. McMillan (Whitehurst), 165 ft. from W line, 990 ft. from N line of Lot 12, Fulton Pasture Subd., Fitzsimmons League.
Drlg. 3,975 ft. after P.B. from 4,018 ft.

STARR COUNTY

Armstrong, Emanuel & Adams' No. 1 S.C. C.C., 330 ft. from S and E lines of Blk. 57, Porcion 88-89.
T.D. 2,740 ft.; setting csg. to test sand 2,705-11 ft.
C. R. Borah's No. 1 A. Guerra, San Jose grant, 330 ft. from N and 150 ft. from E lines of Sec. 6 (NE part of county).
Drlg. 2,740 ft.
John H. Clopton's No. 1 Roos, 13,155 ft. N of Highway 4, along E line of Por. 92, 3,300 ft. N, 80 deg 45 min. W.
Fishing 4,334 ft.
John H. Clopton's No. 1 Dioncia Lopez de Tijerina, Blk. 4, Tract C-14, Porcion 80.
S.D. 800 ft.
Crawford et al's No. 1 Hicks et al, 150 ft. SE and NE line of NW, Perdernal grant.
S.D. 1,415 ft.
Dainwood Oil Co.'s No. 1 Guerra, 5,280 ft. W line and N line of Share 26, Porcion 70-71-72.
Location.
Geo. Lacy's No. 1 Abney, Porcoin 99; ½ mi. W of Vernon's No. 1.
Derrick.
F. D. Vernon's No. 1 G.L.&C.C.O., 330 ft. midway between N and S lines of Lot 8, Porcion 100.
Coring 2,790 ft.
Morris & Bryan's No. 1 Hicks & Hicks, 660 ft. NE line, 2,000 ft. SE line of 500-ac. tract, Pedernal grant.
T.D. 1,103 ft.; no report.
Monroe Drlg. Co.'s No. 1 Guerra, 330 ft. from NE and SE lines of Blk. 35, J. N. Crawford Subd., Por. 56, Jurisdiction of Mier.
Fishing 2,225 ft.
Dale Sneed's No. 1 Y. and V. Guerra, 330 ft. W line of Por. 68, 330 ft. S line of 1,000-ac. block of N end of Por. 92, in Por. 68.
Drlg. hard rock 330 ft.
R. H. Vice's No. 1 Carruth, 3,690 ft. from S line, 3,300 ft. from W line, Share B-1, Por. 91-92.
T.D. 4,016 ft.; cored saturated sand at 2,882-91 ft.; prepare to test.

TRAVIS COUNTY

D. Prewitt's No. 1 Ed Peterson, 150 ft. from SE and SW lines of tract, L. Kimbro Sur.
Rigging up; S.D.
A. Stubbs' No. 1 Julius Kerlin, 530 ft. SW line, 450 ft. NW line of 123-ac. tract in I. Lindsay Sur. No. 61.
S.D. 1,135 ft.

WEBB COUNTY

Frank E. McMillan's No. 1 Bruni, 330 ft. from S and E lines of SW¼ of SE¼ of Sur. 77.
T.D. 900 ft.; no report.
Payne et al's No. 1 Hoggterp, Blk. 5, Sur. 1,110, N of Oilton.
S.D. 600 ft.
J. Elmer Thomas' No. 2 Gates, 1,200 ft. from W line, 300 ft. from S line, Sec. 22, C.C.S.D.&R.G.N.G. Sur., Sec. 65, Blk. 1, T.D. 370 ft.; set csg. 360 ft.; W.O.C.
Arthur H. Wray's No. 1 Geo. Stuempke, Share 1, Brewster pasture, Galan grant.
Spudded; moving in heavier rig.

WILLACY COUNTY

Daniel et al's (South Texas Dev. Co.) No. 1 Armendias, 1,500 ft. W of Arroya Colorado River, 1,200 ft. N of S line of Tract 4, Drlg. 4,780 ft.

WILLIAMSON COUNTY

Fritz Fuchs' No. 1 Pflugger, 500 ft. S and E lines of Jacob Sapington Sur.
Abd. 1,040 ft.
Gault & Mimms' No. 1 H. V. Seggren, 1,000 ft. from W line, 300 ft. from S line of 450-ac. tract, Revel Sur.
Drlg. 43 ft.
Goss et al's No. 1 Timmerman.
Drlg. 28 ft.
Hanson & Ray's No. 1-B M. Oxford Smith, 600 ft. S of No. 1-A in S. Williams Sur.
S.D. 20 ft.
J. Morgan Russell's No. 1 Nelson, 1,150 ft. S line, 1,115 ft. E line of John L. Justice Sur. No. 2.
S.D. 894 ft.

ZAPATA COUNTY

F. H. Crow et al's No. 1 Daniel Yzaguirre, 330 ft. out of SW cor. Share 1, Porcion 14-15-16, D. Yzaguirre tract.
Location for 3,500-ft. test.
Danvers & Harrison's No. 1 D. A. McAskill, near N line of county.
Set and cmtd. csg. 20 ft.
Dinn's (Danvers & Harrison) No. 1 M. J. Vela, 686 ft. NE line and 300 ft. NW line, or 3,140 ft. E line and 330 ft. N line of Por. 39, Blk. 7, Bela Subd.
T.D. 2,253 ft.; moving in heavier rig.
H. B. & W. Oil Co.'s No. 1 Cuellar, 150 ft. NE line, 450 ft. SE line of Blk. 2, Sur.

2. Papas Subd., Porcion 34.
Abd. 1,345 ft.
H. & M. Oil Co.'s (Virginia Hardee) No. 1 Slator, 514 ft. from SW line, 150 ft. from SE line of Blk. 65, Borrego grant.
Standing 22 ft.
Joe Palmer's No. 1 J. M. G. Martinez, 150 ft. SE and SW line, Blk. 27, Sur. 434.
Drlg. 1,235 ft.

ZAVALA COUNTY

Van Beavers et al's No. 1 Flowers, 1,600 ft. from E line, 600 ft. from N line of Sec. 19, I.&G.N.R.R. Sur., Blk. 1.
Derrick being rebuilt.

Southwest Texas Proven

Week Ending March 9

CAESER—BEE COUNTY

Caesar Oil Co.'s No. 2 R. E. Miller.
T.D. 2,034 ft.; making little wtr. with oil.
T.D. 3,090 ft.
Neversuch Oil Co.'s (J. K. Hughes of Mexia) No. 1 Barroum, 330 ft. from N and W lines of SW 40-ac. of W½ of Barroum 1,068-ac. tract in Baker Sur.
T.D. 3,067 ft.; C.O.
Luling O. & G. Co.'s No. 6-B Ruhman, 660 ft. from NW line, 550 ft. from NE line of 163-ac. tract, Hodge Sur.
Spudded.

DIRKS—BEE COUNTY

Conservative Oil Co.'s No. 1 Harris, 330 ft. S of N line, 330 ft. W of E line of 30-ac. tract, J. L. Dugat Sur.
Rigging up.
Dirks Bros.' No. 1 J. E. Roth, 280 ft. from N line, 330 ft. from W line of S½ of NW¼ of Sec. 7.
Spudded.

PETTUS—BEE COUNTY

United Prod. Co.'s No. 49 Ray, 30 ft. from N line, 1,320 ft. from W line of W. J. Porter Sur.
Spudded and set surface csg.

TULETA—BEE COUNTY

Blanco Oil Co. and Buchanan's No. 3-A Perez, 660 ft. from N line, 330 ft. from E line of SE¼ Sec. 9.
Drlg. 3,800 ft.
Edwin M. Jones' No. 12 Robinson, 330 ft. from S and W lines of 160-ac. tract.
Tested gas 3,926 ft.; deepening to Yegua.
Edwin M. Jones' No. 2 Robinson, 330 ft. from S line, 990 ft. from E line of SW¼ of Sec. 5.
T.D. 3,967 ft.; est. 300 bbls. daily.
Edwin M. Jones' No. 14 Robinson, 900 ft. from S and E lines of Sec. 5.
Rigging up.
Heyser, Heard & Walton's No. 1 fee, 50 ft. from the No. 1.
Spudded.
Houston Oil Co.'s No. 6 Ed Strauss, C of Lot 11, SW¼ Sec. 9, W offset to No. 5.
Drlg. sand 3,992 ft.
Houston Oil Co.'s No. 10 Ed Strauss, C Lot 5 from SE¼ of Sec. 9, Hahl Subd., J. M. Uranga grant.
Waiting on rig.
Mills Bennett's No. 3 Silcock.
Drlg. 3,872 ft.
Mills Bennett's No. 3 Harris, 660 ft. W of No. 2 Harris.
Rigging up.
Southwest Exploration Co.'s No. 1 Heyden & Bruckham, C of farm tract, 330 ft from N and W lines of Sec. 20, Uranga grant.
Rigging up.
Tuleta Oil Co.'s No. 3 Skinner & Harris.
T.D. 3,932 ft.; I.P. 300 bbls. per day.
Tuleta Oil Co.'s No. 4 Skinner & Harris, 330 ft. from S and E lines of W 80 acres of NW¼ of Sec. 10.
Setting csg. 3,925 ft.
Wrightsman Oil Co.'s No. 1 Kimball, 1,200 ft. from NW line, 1,500 ft. from NE line, S. Winship Sur.
Spudded and S.D.

VON ORMY—BEXAR COUNTY

Jack Crouch's No. 5 Hoch, 330 ft. S of No. 4, Baerera Sur. No. 58.
S.D. 250 ft.
Richcul Oil Co.'s No. 1 Kohler, 1,000 ft. from N line, 155 ft. from E line of J Vogt 96.5-ac. tract in J. M. Baerera Sur. No. 58.
Moving in spudder 1,370 ft.
Richcul Oil Co.'s No. 1 Weilbacker, 155 ft. from E line, about 2,250 ft. S of highway in Jett Sur.
S.D. 665 ft.

GOVERNMENT WELLS POOL—DUVAL COUNTY

Mills Bennett's No. 1 W. R. Peters, 330 ft. from S and E lines of NW¼ of Sur. 178.
Standing 2,153 ft.
Bridwell Oil Co.'s No. 2 Schoolfield, 990 ft. from N line, 330 ft. from W line of Blk. 13, Sur. 73.
Abd. 2,771 ft.
Geo. E. Buck's No. 1 Norton, 330 ft. from N and W lines of SE¼ of SW¼ of Sur. 62.
Swbng. 2,377 ft.
H. H. Coffield's No. 5 Wendt, 330 ft. from S line, 810 ft. from E line of NE¼ of Sur. 43.
W.O.C. 2,272 ft.
Edgington & Murray's No. 2 C. W. Hahl, 330 ft. N and E lines, Blk. 16, Sur. 250.
Swbng. 2,370 ft.
Gov. Wells Oil Co.'s No. 11 State, 1,650 ft. from E line, 330 ft. from N line, Sur. 60.
Drlg. 1,920 ft.
Frank Gravis et al's No. 1 C. W. Hahl, 330 ft. from S and E lines of NE¼ of Sur. 365.
Drlg. 1,600 ft.
L. & R. O. & G. Co.'s No. 1 Hahl, 330 ft. from S and E lines of NE¼ of Sur. 63.
Rigging up.
Magnolia Pet. Co.'s No. 1 Hahl-Southland, 330 ft. from S and E lines of NW¼ of Sur. 61.
T.D. 2,325 ft.; I.P. 10 bbls. per hr.; flowing.
Magnolia Pet. Co.'s No. 4 Humble-D.C.R.C., 330 ft. from S line, 1,650 ft. from E line of NE¼ of Sur. 362.
Coring 2,250 ft.
Magnolia Pet. Co.'s No. 1 C. W. Hahl, 330 ft. from N and E lines of Sur. 67.
Coring 2,802 ft.
Magnolia Pet. Co.'s No. 5 Hahl-Norton, in Sur. No. 61.
W.O.C. 2,310 ft.
Reynosa Oil Co.'s No. 2 Lundell, 330 ft. from N and W lines of NE¼ NE¼ of Sur. 60.
Abd. 2,342 ft.
Reynosa Oil Co.'s No. 3 Lundell, 330 ft. from S and E lines of NE¼ NE¼ of Sur. 60.
Spudded; (correction).
Salt Dome Oil Co.'s No. 5-B Moody, 330 ft. from N and E lines of NE¼ NW¼ of Sur. 60.
Rigging up.
Southwest Drlg. Co.'s No. 1 Luptack, 330 ft. from N and E lines of N 50 acres of E 100-ac. tract in SE¼ of Sur. 41.
Derrick.
Texas Co.'s No. 4 Hahl, 330 ft. from E and E lines of Blk. 17, Sur. 250.
Waiting on pump 2,363 ft.
Texas Co.'s No. 1 M. Vela, 330 ft. from N and E lines of S½ of Sur. 42.
Waiting on pump 2,287 ft.
Texas Co.'s No. 5 Vela, 990 ft. E line, 330 ft. N line of S½ of Sur. 42.
Cored sand; setting csg. 2,732 ft.
Texas Co.'s No. 2-B Wendt, 330 ft. from S and E lines of 75-ac. tract, Sur. 43.
Testing 2,262 ft.
Windsor Oil Co.'s No. 4 Cummings, 380 ft. from N line, 150 ft. from W line of 20-ac. tract, Sur. 44.
T.D. 2,295 ft.; I.P. 50 bbls. per day.

LOMA NOVA—DUVAL COUNTY

Humble O. & R. Co.'s No. 2 Ruiz, 1,722 ft. from W line, 330 ft. from SE line of Sur. 553.
Drlg. in 2,829 ft.

DARST CREEK—GUADALUPE COUNTY

Grayburg Oil Co.'s No. 13 McKean, 500 ft. NE of No. 4, Cottle Sur.
T.D. 1,758 ft.; moving back rotary.

LUCAS—LIVE OAK COUNTY

Houston Oil Co.'s No. 31 Cartwright, 1,010 ft. N of No. 30, J. Sandman Sur.
Drlg. plugs 1,015 ft.
Lion Oil Ref. Co.'s No. 4 McNeil, 355 ft. due S of No. 1.
Set surface csg.; W.O.C.
Lion Oil Ref. Co.'s No. 3 McNeil, 660 ft. N, 660 ft. E of No. 1.
T.D. 4,450 ft.; comp.; gas well, little oil; 1,200 lbs. csg. pressure; 900 lbs. tubing pressure.

SAM FORDYCE—HIDALGO COUNTY

Alamo Drlg. Co.'s No. 2 Guerra, 233 ft. from N line, 330 ft. from E line of NW 12.5 acres of S 75 acres, of Tract 254, Por. 40.
T.D. 2,125 ft.; standing.
Bridwell's No. 2 Pena, 200 ft. from E line, 230 ft. from S line of Tract 277, Por. 40.
Moving in material.
Heep Oil Corp.'s No. 1 Lawrence, 226 ft. from N line, 241 ft. from E line of SE 5 acres of Tract 274, Porcion 39.
Spudding.
Hill & Hill's No. 1 C. E. Smith, W end of S 10 acres, Share B-3, Por. 41.
W.O.C. 2,760 ft.
Kingwood Oil Co.'s No. 1-B Lawrence, 114 ft. from N line, 241 ft. from E line of SW 9.52 ac., Tract 274, Por. 39.
Set csg. 2,775 ft.
Navarro Oil Co.'s No. 3 Seabury, N 28-ac. Tract 256, Porcion 38.
T.D. 2,772 ft.; comp. wet gasser; shut in.
Reserve Oil Co.'s No. 2 Seabury, 330 ft. S and E lines of 28-ac. tract, Tract 256, Porcion 38.
T.D. 2,772 ft.; I.P. 75 bbls. per day, ⅛-in. choke, 250 l. s. T.P.
Reserve Oil Co.'s No. 3 Seabury, 643 ft. from N line, 230 ft. from E line of N 28-ac. Tract 256, Por. 38.
Drlg. 2,650 ft.
Roger O. & G. Co.'s No. 3 Guerra, 230 ft. from N and W lines of SE 25 acres of Tract 254, Por. 40.
W.O.C. 2,761 ft.
Skelly Oil Co.'s No. 1 Seabury, 330 ft. from S line, 230 ft. from E line of W 24 acres, Tract 256, Por. 38.
Drlg. 1,950 ft.
Waite's (Scheafer & Mundy) No. 1 Tobasco, Ind. Dist., 25 ft. from N line, 210 ft. from E line of Tract 260, Por. 38.
Spudded.
Weekly Oil Co.'s No. 4 Smith, 1,000 ft. from N line, 165 ft. from E line of NE 34.43 acres, Tract 278, Por. 40.
Drlg. 2,140 ft.

HENNE-WINCH-FARISS—JIM HOGG COUNTY

Magnolia Pet. Co.'s No. 36-A Martinez, 330 ft. from S and E lines of Sur. 275.
Drlg. 3,308 ft.

SANDIA—JIM WELLS COUNTY

O. W. Killam's No. 4 Wade, ¼ mile N of No. 3 Wade.
Drlg. 4,200 ft.
Magnolia Pet. Co.'s No. 6 Seeligson, 660 ft. W, 330 ft. S of No. 3, Canales Sur. No. 20.
T.D. 3,000 ft.; plugged back and side-tracked; drlg. 2,600 ft.
Sinclair Prairie's No. 1-A Seeligson, 630 ft from N line, 330 ft. from E line of B.S. &F. Sur.
T.D. 3,901 ft.; plugged back and shot pipe at 3,234 ft.; comp. for large gas well.

BURNEL—KARNES COUNTY

Marrs & Brown's No. 1 E. Timberg, 330 ft. from NE line, midway NW and SE lines of 177-ac. tract, Johnson Sur.
Spudded and set surface csg.

KINGSVILLE—KLEBERG COUNTY

Fidelity Exploration Synd.'s No. 1 Vivian Kivlin, Sec. 4, Blk. 39, K.T.&I. Sur. on Vivian Kivlin lease.
Derrick up.

JACOB POOL—McMULLEN COUNTY

Kennon & Stephenson's No. 2 Lark, 150 ft. from N and W lines of Blk. 15, Scrugham Sur.
Preparing to complete 1,038 ft.
Longhorn, trustee's No. 4 Lark, Blk. 4 of the Scrugham Sur.
T.D. 1,035 ft.; trying to comp.

SINTON—SAN PATRICIO COUNTY

Humble O. & R. Co.'s No. 1 Welder, 2,400 ft. from N and E lines of 300-ac. lease.
Coring 5,500 ft.

ANGELITA—SAN PATRICIO COUNTY

Plymouth Oil Co.'s No. 2-B Welder, start at SW cor. of "B" lease, thence NW along the W line 2,100 ft., thence 350 ft. NE at R/A
W.O.C. 5,386 ft.; T.D. 6,359 ft.

LOS OLMOS—STARR COUNTY

H. L. Curry's No. 1 Bass, 835 ft. E line, 2,522 ft. N line of Sur. 3, Por. 75-76-77.
W.O.C. 1,187 ft.
J. P. Kennedy's No. 1 Kelsey-Bass, 200 ft. SE of No. 7 Kelsey-Bass in Blk. 7 of Porcions 75, 76 and 77.
Standing 710 ft.

BARBACOAS—STARR COUNTY

Merren Bond et al's No. 4 S.C.C.C., 330 ft from N and E lines of S 20 acres of Blk. 24, of the Jeffries Lambeth Subd., Por. 89.
Preparing drill stem test 2,900 ft.

RIO GRANDE CITY—STARR COUNTY

Goodwin et al's No. 1 Pena, 150 ft. from SE and SW lines of Share 80, Por. 81.
Drlg. 1,015 ft.
R. M. Mitchell's No. 1 Salinas, 188 ft. from N line, 800 ft. from W line, Blk. 2, Share 39, Por. 80.
Drlg. 710 ft.

SAXET—NUECES COUNTY

Southern Mineral Corp.'s No. 4 Ocher, 1390 ft. S line and 417 ft. E line of Ocher 202.52-ac. tract in Sec. 8.
Derrick.

WEST COLE POOL—WEBB COUNTY

American Liberty Oil Co.'s No. 3-A Bruni, 883 ft. NW line, 777 ft. SW line of Sur. 6, M. Arispe grant.
Abandoned location.
American Liberty Oil Co.'s No. A-14 Bruni, 781 ft. from S line, 330 ft. from W line, Sur. 6, Arispe grant.
W.O.C. 275 ft.
J. M. Anderson's (Stieren et al) No. 1 Philp, 1,461 ft. from E line, 3,519 ft. from S line of Sur. 320.
Set surface csg.
CarolinaTexas O. & G. Trust, Inc.'s No. 11 S. Benavides, 150 ft. from S line, 600 ft. from W line, Blk. 12, Sur. 683.
Drlg. 3,700 ft.
Cole Pet. Co.'s No. 90 Bruni, 332 ft. from NE line, 330 ft. from SE line of Sur. 1.
T.D. 3,408 ft.; I.P. 20,000,000 ft. gas per day.
Cole Pet. Co.'s No. 91 Benavides, 614 ft. from SE line, 927 ft. from NE line of Sur. 1.
Drlg. 1,235 ft.
Foster Barnsley's No. 6 Webster, 150 ft. E line, 510 ft. S line of NE SW Sur. No. 684.
T.D. 3,053 ft.; I.P 3 bbls per day on pump.
Highland Oil Co.'s No. 2 Bruni, 330 ft. from NW and NE lines of tr. in Sur. 7.
Set surface csg.
Highland Oil Co.'s No. 5 Bruni, 1,300 ft. from NW line, 330 ft. from SW line of Pure's 200-ac. tract in Sur. 2, Arispe grant.
T.D. 3,410 ft.; I.P. 30 bbls. per hour, ¼-in. choke.
O. W. Killam's No. 1-A Bruni, 275 ft. from N line, 200 ft. from W line of Blk. 55, Brown Subd., Albercas grant.
T.D. 2,352 ft.; plugged back and set csg. 2,100 ft.; W.O.C.
O. W. Killam's No. 32 Bruni, 260 ft. from SE line, 418 ft. from NE line of Blk. 28, Sur. 8.
No report.
O. W. Killam's No. 34 Bruni, 236 ft. from SW line, 330 ft. from SE line, Sur. 6.
Derrick.
Magnolia Pet. Co.'s No. 6 Benavides, 150 ft. from S and E lines of SW¼ of SE¼ of Sur. 661.
W.O.C. 2,350 ft.
Magnolia Pet. Co.'s No. 9 Brennan Benavides, 150 ft. from SE lines of common cor., Blks. 418 and 419.
T.D. 2,770 ft.; I.P. 40 bbls. per hour.
Highland Oil Co.'s (Pure) No. 2 Bruni, 330 ft. NW and NE lines of tract in Sur. 7.
Location.
Sun Oil Co.'s No. 3 Bruni, 260 ft. SE line, 418 ft. NE line of Sur. 5.
Swabbing in at 3,436 ft.
Sun Oil Co.'s No. 6 Bruni, 260 ft. from SE line, 418 ft. from NE line, Blk. 15, Sur. 5.
Coring 3,400 ft.

BYERSVILLE—WILLIAMSON COUNTY

R. R. Ogden's No. 1 Matteck, 150 ft. N and W lines of 108.5-ac. tract in White Sur.
Location.
Tayor Ref. Co.'s No. 6-A Heep, H. White Sur.
Abandoned 1,000 ft.

GOPHER—ZAPATA COUNTY

O. W. Killam's No. 2 Bruni, 5,700 ft. from NW line, 2,615 ft. from NE line of Borrego grant.
Drlg. 1,600 ft.

JENNINGS—ZAPATA COUNTY

Texas Co.'s No. 63 Whitehead, 4,004 ft. from SE line, 19,919 ft. from SW line, Cerrito Blanco grant.
T.D. 1,694 ft.; P.B. to 1,238 ft.; testing.

LOPENO—ZAPATA COUNTY

Norden & Morris' No. 1 Vela, 1,320 ft. from NE line, 660 ft. from SE line, Blk. 6, Por. 20.
W.O.C. 2,316 ft.
Venture Pet. Co.'s No. 1 I. Ramiriz, 990 ft. from NE and NW lines of Blk. 1, Por. 18.
W.O.C. 2,349 ft.

MARTINEZ—ZAPATA COUNTY

MIRANDO VALLEY—ZAPATA COUNTY

Cliff Durka' No. 1 R. Hinnant, 200 ft. W line, 750 ft. S line of Blk. 16, Sur. 116.
Abandoned 1,562 ft.

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Prices on Oil Exchange Fairly Steady

NEW YORK, Mar. 11.—At the end of the first week's trading in gasoline and crude oil futures on the commodity exchange the market in both products was fairly steady. Gasoline futures opened today with a three to nine-point decline. Later in the session the market firmed and prices at the close were unchanged to three points higher in all positions with the exception of August which was one point lower. Crude oil futures opened three-quarters to 2 cents lower. The market firmed up fractionally during the day and prices at the close were unchanged to 1¼ cents lower.

While trading was not active in either gasoline or crude oil futures the first week those responsible for the inauguration of the trading were pleased with the first week's developments which were similar to the trends in other commodities when future trading was first started. The experience with other commodities is that trading gradually increases as operators within the industries become familiar with the facilities available.

The low octane U. S. Motor which is the base grade opened a week ago at 5.90 cents including 1 cent federal tax. In the face of a generally weak commodity and security market, prices have declined from the opening. The lows for June and July delivery have not been below 5.70 cents. Crude oil declined from the opening of $1.25 per barrel in the face of weakness which has been apparent in the general oil situation. In four July contracts today prices fluctuated between $1.18 and $1.18½ with September contracts at $1.20¼. Sentiment is generally bullish regarding the crude market for summer and fall delivery.

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Naphthene Content of Rumanian Gasoline High

By GUSTAV EGLOFF and EDWIN F. NELSON
Universal Oil Products Co.

Rumanian crude oils of widely different chemical composition are found in all sedimentary formation from Cretaceous to early Pliocene. The area extends from Marmures and Bukowina to Oltenia. The most important in the sub-Carpathian lies between the valley of Tratus and Jalomitza and Buzau, Prahova and Dambovitza.

The oil production of Rumania for the year 1933 was 51,821,000 bbls. composed of 50,971,000 bbls. of crude and 850,000 bbls. of natural gasoline and benzol. An estimated production of 59,500,000 bbls. of oil[1] for the year 1934 has been made which is about 4 per cent of the world's oil output.

The oil producing fields of Rumania in the order of importance may be put as follows: Gura-Ocnitzei, Boldesti, Moreni, Ochiuri, Ceptura, Piscuri, Runcu-Scorteni, Chiciura and the new field of Aricesti.

The production and drilling in the various oil fields[2] of Rumania are shown in Table 1.

The Gura Ocnitzei crude oils range in gravity from about 0.825 to 0.900, some of which are rich in gasoline and paraffin wax whereas others are low in these components. Representative analyses of these crude oils[3] derived from different geologic ages and oil producing strata are given in Table 2.

The distillation analysis and specific gravity of gasoline derived from paraffin-free and paraffin-containing crudes are given in Table 3.

The gasolines are relatively high in naphthene hydrocarbons compared to most American crude oils. The hydrocarbon content of Gura Ocnitzei gasolines are shown in Table 4 and for comparison a set of analyses are also given for gasolines obtained from Pennsylvania, Oklahoma, Kentucky, California, Kansas, Arkansas, Texas and Michigan in Table 5.

Distillation analyses of kerosenes and gas oils from Gura Ocnitzei crude are given in Table 6.

Moreni crudes[4] are very low in sulphur and ash content, ranging from 0.16 to 0.35 per cent and 0.01 to 0.02 per cent respectively. The crude oils analyzed were produced from four or more sands. Table 7 gives the elementary analysis of Moreni crudes.

Some of the Moreni crude oils are rich sources of naphthenic acids. The naphthenic acid content ranges from 0.06 to 2.3 per cent as shown in Table 8.

Moreni crude oils vary quite widely in their gasoline and paraffin content, ranging from about zero to 43 per cent for the gasoline and as high as 9 per cent for the wax. The data on the percentage of products derivable from these crude oils[5] are shown in Table 9, with the geologic age and strata from which the crude oils were produced.

The chemical characteristics of the fractions of Moreni crude oils, as to hydrocarbons, resins and naphthenic acids content, are shown in Table 10.

Distillation analyses of gasolines from Moreni crudes are shown in Table 11.

The gasolines derived from Moreni crudes are high in aromatic and naphthenic hydrocarbons. The data are shown in Table 12.

The kerosene and gas oil fractions from Moreni crudes are given in Table 13.

The fuel oil from paraffin-free Moreni crude was vacuum distilled to determine the properties of the lubricating oil fractions, which are shown in Table 14.

Rumanian oils make excellent cracking stocks to produce high yields of high antiknock motor fuels. The Moreni and Gura Ocnitzei crude oils were topped into gasoline, white spirits and a fuel oil residue. The fuel oils were cracked, using Dubbs principles.

In order to obtain still more data as to the characteristics of these two interesting crude oils, they were topped in and 800 c.c. distillation through a 6-inch Hempel Column to produce 302° F. and 392° F. endpoint straightrun gasolines. To still further reduce the crude oil so as to produce a heavier cracking stock, the crude was processed in a semicommercial topping unit to remove the fraction boiling off at 476° F. The products obtained from the topping still were analyzed and Table 16 shows the results of this analysis.

(Continued on Pages 52 and 53)

[1] Garfias and Whetzel, The Oil and Gas Journal, November 8, 1934, p. 11.
[2] Petroleum Development and Technology (1934).
[3] Casimir, Petr. Zeit., Oct. 3, 1934, p. 5.
[4] Casimir, Petr. Zeit., Oct. 3, 1934, p. 4.
[5] Casimir, Petr. Zeit., Oct. 3, 1934, p. 4.

TABLE 1

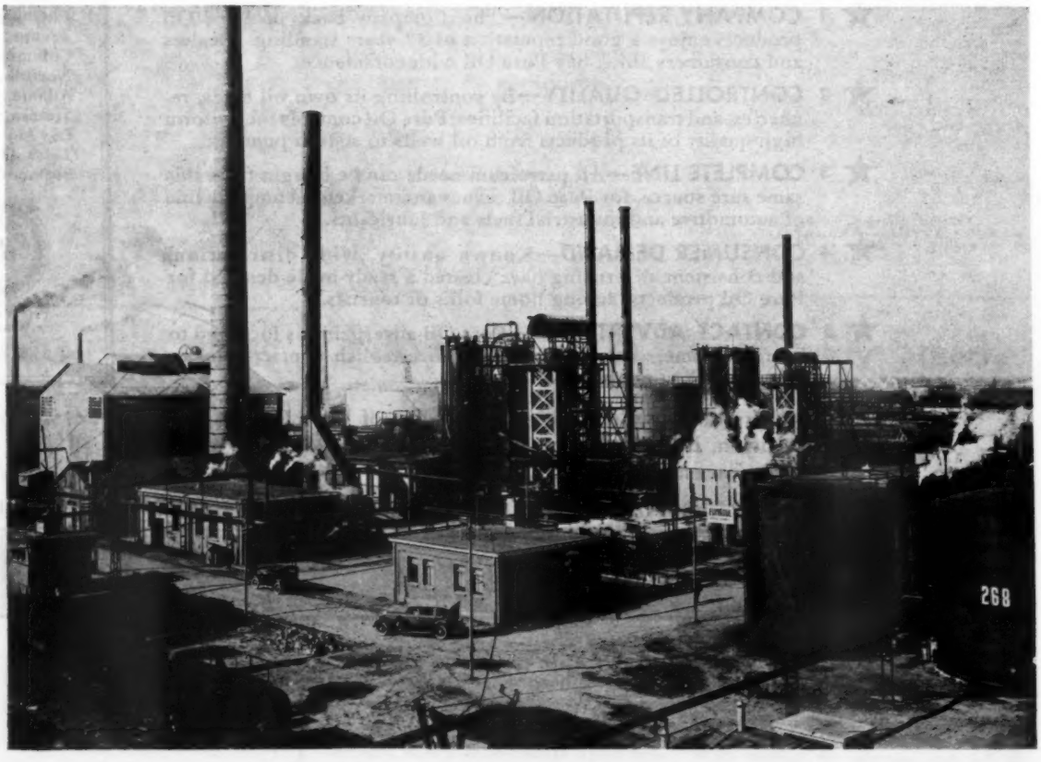
Field—	Age of field, years	Total production bbls., 1932	Well situation, Dec. 31, 1933—Drilling	Producing	Repairing
Gura Ocnitzei	50	24,059,143	32	252	12
Ochiuri	19	4,449,569	2	70	2
Rasvad	..	175,704	6	2	...
Glodeni	73	46,443	...	3	...
Total Dambovitza district	..	28,730,859	40	327	14
Moreni	50	6,084,959	...	216	10
Piscuri	..	2,878,872	11	41	2
Boldesti	5	6,987,567	6	31	...
Ceptura	9	3,234,623	...	49	...
Runcu-Scorteni	21	1,276,624	6	97	6
Chiciura	21	1,002,086	1	148	16
Bustenari	50	388,039	...	268	15
Bordeni-Recca	..	16,337	1	10	2
Aricesti	1	1,163,248	10	6	2
Baicoi	70	428,320	1	35	4
Tintea	70	321,565	...	26	5
Campina	50	247,039	...	66	...
Filipesti de Padure	23	.....	1	...	1
Copaceni	..	163,148	1	5	1
Scaiosi and Udresti	..	14,126	...	3	...
Wildcat wells	..	.....	2	...	...
Total Prahova district	..	24,206,553	40	1,001	64
Buzau district	..	484,158	1	84	...
Bacau district	..	420,436	2	162	1
Neamts district	..	.....	1	...	...
Total Rumania	..	53,842,006	84+	1,574	79

	In 1932	In 1933
Natural gasoline production, gallons	60,250,801	59,660,718

TABLE 2—LIMITS AND MEAN VALUES OF THE DISTILLATION ANALYSIS OF GURA OCNITZEI CRUDES

Geological stage crude oil-producing strata—			Upper Dacian "Moreni" and "Drader"	"Drader"	Maotic I + III
Sp. gr. of the crude oil at 15° C.		Limits	0.824–0.898	0.831–0.900	0.827–0.890	0.820–0.854
		Average	0.851	0.852	0.848	0.839
Light gasoline	Fraction %	Limits	7–36	10–22	10–25	7–24
		Average	22	15	16	16
	Sp. gr.	Average	0.727	0.727	0.723	0.726
Heavy gasoline	Fraction %	Limits	0–1.5	0–11	0–12	0–10
		Average	1	3.5	4	2.5
	Sp. gr.	Average	0.772	0.7685	0.7665	0.768
Kerosene	Fraction %	Limits	11–40	14–32	19–32	21–34
		Average	22	24	25	28
	Sp. gr.	Average	0.819	0.817	0.816	0.812
Gas oil	Fraction %	Limits	4–13	3–13	3–13	3–17
		Average	9.5	7	9	11.5
	Sp. gr.	Average	0.867	0.867	0.863	0.850
Fuel oil	Fraction %	Limits	30–68	37–69	38–65	31–48
		Average	45.5	40.5	46	41.5
	Sp. gr.	Limits	.....	0.926–0.960	0.921–0.960	0.897–0.930
		Average	.....	0.944	0.933	0.919
	Engler Vis.	Limits	11–26	8–25	7–18	5–28
		Average	18.5	14	11.5	12
	Cold test	Limits	(*)	(†)	(‡)	(§)
Per cent paraffin in crude oil		Limits	0.8–3.7	0.8–2.1	0.7–3.2	2–6

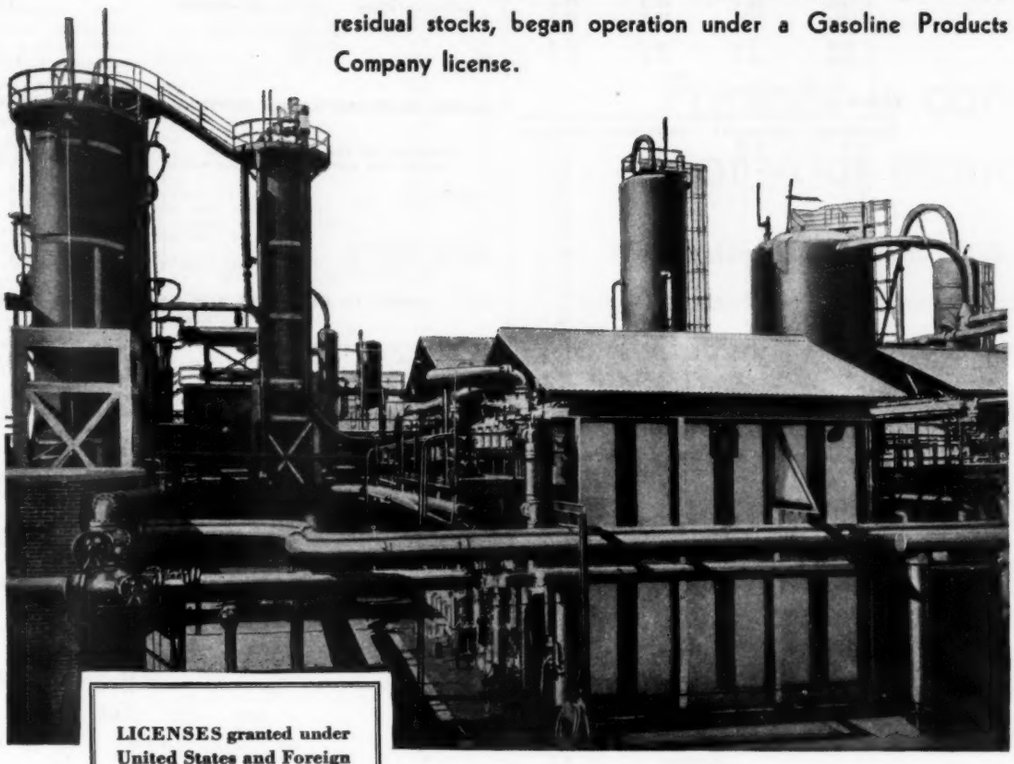
*—15° C. and +30° C. †—15° C. and +17° C. ‡—15° C. and +12°C. §+20° C. and +40° C.



Dubbs cracking units in Rumania

..in CANADA

During 1934 a cracking unit of the latest design, for processing residual stocks, began operation under a Gasoline Products Company license.



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By coordinating the results of experiments, developments and operation of several major refinery organizations Gasoline Products Company is able to offer combination cracking units embodying those features of design adapted to the individual problems of the refiner.

This coordination of technical data assures the refiner that the designs available include the latest developments in cracking technique.

We suggest you investigate this comprehensive service before investing in cracking equipment.

GASOLINE PRODUCTS COMPANY

INCORPORATED

11 COMMERCE STREET · NEWARK, NEW JERSEY

TABLE 3—GASOLINE FROM GURA OCNITZEI CRUDE OILS
(Engler Distillation)

Character of the crude oil from which the gasoline was obtained—	Sp. gr.	Per cent volume 100° C.	Per cent volume 150° C.	Endpoint °C.
Paraffin-free	0.7215	58	96	160
	0.728–0.730	50	95	171
	0.745	31	86	193
Paraffin-containing	0.725	54	94	167
	0.728–0.730	49	95	172
	0.745	35	86	195

TABLE 4—HYDROCARBON COMPOSITION OF THE GASOLINE FROM GURA OCNITZEI CRUDE OILS

Character of the crude oil from which the gasoline was obtained—	Sp. gr.	Chemical composition of gasolines (Wt. per cent) Aromatic	Naphthenic	Hydrocarbons Paraffinic
Paraffin-free	0.7294	10.5	40.2	49.3
	0.7454	13.3	33.1	53.6
Paraffin-containing	0.7390	8.4	39.7	51.9
	0.7449	11.6	31.3	57.1

TABLE 5

Gasoline source—	Per cent Naphthenes	Aromatics	Unsaturates	Paraffins
Pennsylvania	18.0	6.9	2.2	77.9
Pennsylvania	1.2	4.2	2.3	92.3
Pennsylvania	23.4	0.0	1.3	75.3
Pennsylvania	23.3	0.0	4.0	72.6
Pennsylvania	11.7	4.9	2.9	80.5
Oklahoma (Cushing)	23.7	4.9	1.6	69.8
Oklahoma (Cushing)	17.9	3.6	3.7	74.8
Oklahoma (Cushing)	26.2	0.0	2.9	70.9
Oklahoma (Seminole)	23.0	4.5	3.4	69.1
Kentucky	23.1	2.8	5.8	68.3
Kentucky (Somerset)	20.6	5.3	3.8	70.3
California	34.9	2.8	5.1	57.2
California	41.2	0.8	2.3	55.7
Kansas	20.3	0.4	2.7	76.6
Arkansas (Smackover)	14.5	11.3	7.9	66.3
Texas (Refugio)	22.1	8.7	3.2	66.0
Texas	27.4	6.0	3.2	63.4
Texas	25.8	2.5	3.2	68.5
Texas	24.7	1.2	3.7	70.4
Texas (Van Zandt)	8.0	2.9	1.7	95.4
Michigan (Mount Pleasant)	7.4	4.5	2.9	85.2

TABLE 6—KEROSENE AND GAS OIL FROM GURA OCNITZEI CRUDE OILS
(Engler Distillation)

Character of the crude oil—	Kerosene Sp. gr.	280° C.	Gas oil Sp. gr.	350° C.
Paraffin-free	0.816	94% Vol.	0.862	92% Vol.
Paraffin-containing	0.811	89% Vol.	0.845	89% Vol.

TABLE 7—ELEMENTARY COMPOSITION OF MORENI CRUDE OILS

Geological stage and oil-bearing strata—	Per cent C	Per cent H	Per cent S	Per cent N	Per cent O	Per cent ash
Dacian:						
Gros	86.75	12.07	0.35	0.24	0.58	0.41
Moreni	86.87	12.21	0.25	0.21	0.44	0.03
Drader	86.59	12.48	0.26	0.18	0.48	0.01
Maotic	86.17	13.20	0.16	0.13	0.33	0.02

TABLE 8—NAPHTHENIC ACID CONTENT OF MORENI CRUDE OILS

Geological stage	Oil-bearing stratum	Acid No.	Naphthenic acid content, per cent
Dacian (S)	Gros	5.0	2.8
	Moreni	4.5	1.9
	Drader	3.8	1.5
Maotic (S)	I + III	0.13–0.31	0.06–0.14

TABLE 12—HYDROCARBON CONTENT OF GASOLINE FROM MORENI CRUDE OILS

Character of the crude oil from which the gasoline was obtained—	Sp. gr.	Chemical composition of gasolines (Wt. per cent) Aromatic	Naphthenic	Hydrocarbons Paraffinic
Paraffin-free	0.723	11.6	45.6	42.8
	0.729	12.0	44.9	43.1
	0.745	14.3	40.2	45.5
Paraffin-containing	0.720	15.2	32.1	52.7
	0.728	16.7	30.6	52.7
	0.744	19.3	28.3	52.5

TABLE 13—KEROSENE AND GAS OIL FROM MORENI CRUDE OILS
Engler Distillation

Character of the crude oil—	Kerosene Sp. gr.	10% vol.	50% vol.	90% vol.
Paraffin-free	0.818	160° C.	187° C.	255° C.
Paraffin-containing	0.810	180° C.	220° C.	278° C.
	Gas oil			
Paraffin-free	0.869	215° C.	256° C.	310° C.
Paraffin-containing	0.848	280° C.	308° C.	363° C.

TABLE 9—LIMITS AND MEAN VALUES OF THE DISTILLATION ANALYSIS OF MORENI CRUDES

Geological stage crude oil-bearing strata—			Upper	Dacian "Moreni"	Dacian "Drader"	(?)	Maotic I	Maotic II
Specific gravity of the crude at 15° C.		Limits	0.865–0.922	0.868–0.915	0.848–0.901	0.785–0.828	0.825–0.865	0.821–0.846
		Average	0.899	0.891	0.866	0.805	0.847	0.832
Light gasoline	Fraction, per cent	Limits	2–21	5–19	4–25	37–43	5–25	6–21
		Average	10	11.5	15	40	14	15
	Specific gravity	Average	0.728	0.728	0.728	0.723	0.728	0.727
Heavy gasoline	Fraction, per cent	Limits	0–3.5	0–3.5	0–9	.....	0–9	0.5–12
		Average	1	1.5	3	.....	4	4
	Specific gravity	Average	0.769	0.771	0.769	.....	0.7675	0.769
Kerosene	Fraction, per cent	Limits	8–33	13.5–25	18–26	19–28	21–31	27–35
		Average	16.5	19	23	23	25.5	31
	Specific gravity	Average	0.8185	0.820	0.8185	0.807	0.811	0.807
Gas oil	Fraction, per cent	Limits	3–12	2–8	1.5–7	6.5–9	4–13	0–17
		Average	6.5	4	4.5	8	10.5	11
	Specific gravity	Average	0.869	0.870	0.8685	0.866	0.848	0.845
Fuel oil	Fraction, per cent	Limits	51–74	55–73	47–68	21–34	38–57	33–54
		Average	66	64	54.5	29	46	39
	Specific gravity	Limits	0.949–0.973	0.949–0.965	0.931–0.952	0.925–0.938	0.910–0.934	0.896–0.927
		Average	0.9585	0.957	0.940	0.934	0.919	0.907
	Engler viscosity	Limits	6°–20°	9°–20°	7°–14°	14°–20°	8°–12°	4°–13°
		Average	14°	13.5°	9.5°	14.5°	13°	8°
	Cold test		(*)	(*)	(*)	(†)	(‡)	(§)
Per cent paraffin in crude oil		Limits	0.4	.....	1.2	0.7–3.5	2.8–7.6	3–9.1
		Average	...	0.6	.....	2.1	4.6	6

*Below —12° C. †Between —15° C. and +30° C. ‡Between +10° C. and +40° C. §Between +25° C. and over 40° C.

TABLE 10—CHEMICAL CHARACTERISTICS OF THE FRACTIONS OBTAINED IN THE DISTILLATION OF THE CRUDE OILS OF MORENI

Fraction, °C.—	—60	60-95	95-122	122-150	150-200	200-250	250-300	Residue	Loss
DACIAN PERIOD:									
Gros Stratum:									
Specific gravity 0.9154:									
Per cent	0.6	1.7	3.1	4.5	7.8	8.6	8.0	65.0	0.7
Specific gravity	0.636	0.7195	0.7558	0.7753	0.8076	0.8586	0.8967	0.9718	...
Unsaturated hydrocarbons, per cent	0.0	0.0	0.0	0.1	0.6	1.1	1 8	....	...
Aromatic hydrocarbons, per cent	0.0	3.4	5.0	7.0	14.3	28.8	42.2	....	...
Naphthenic hydrocarbons, per cent	2.7	36.0	52.1	71.3	71.4	67.6	52.3	....	...
Paraffinic hydrocarbons, per cent	97.3	60.6	42.9	21.6	13.7	1.5	0.8	....	...
Neutral resins	...	....	....	....	....	0.2	0.9	26.6	...
Naphthenic acids	...	....	....	....	....	0.8	2 3	3.4	...
DACIAN PERIOD:									
Moreni and Drader Stratum:									
Specific gravity 0.868:									
Per cent	1 8	6.0	6.7	6.8	9.8	9.2	7.8	50.2	1.7
Specific gravity	0.639	0.7205	0.7584	0.7795	0.8064	0.8497	0.8846	0.9564	...
Unsaturated hydrocarbons, per cent	0.0	0.0	0.0	0.1	0.8	1.3	1.8	....	...
Aromatic hydrocarbons, per cent	0.0	7.2	14.3	20.9	26.5	30.9	38.7	....	...
Naphthenic hydrocarbons, per cent	7 9	34.7	42.0	50.5	45.8	47.6	40.9	....	...
Paraffinic hydrocarbons, per cent	92.1	58.1	43.7	28.4	26.9	18.2	15.1	....	...
Neutral resins	...	....	....	....	....	0.6	1.0	22.9	...
Naphthenic acids	...	....	....	....	....	1.4	2.5	2.0	...
MAOTIC PERIOD:									
I + III Stratum:									
Specific gravity 0.834:									
Per cent	2.0	5.3	6.8	6.6	8.7	9.3	7.9	52.2	1.2
Specific gravity	0.6385	0.7166	0.7502	0.7695	0.7856	0.8113	0.8281	0.8935	...
Unsaturated hydrocarbons, per cent	0.0	0.0	0.0	0.1	0 5	1.1	1.1	....	...
Aromatic hydrocarbons, per cent	0.0	8.4	14.9	20.9	21.6	19.1	19.0	....	...
Naphthenic hydrocarbons, per cent	8.1	29.1	34.0	36.1	31.9	25.5	17.7	....	...
Paraffinic hydrocarbons, per cent	91.1	62.5	51.1	42.9	46.0	54.2	61.9	....	...
Neutral resins	...	....	....	....	....	....	1.0	17.6	...
Naphthenic acids	...	....	....	....	....	0.1	0.2	0.22	...

Cracking Topped Crude From Rumanian Crude

The topped crude obtained from Rumanian crude oil was cracked in a pilot plant operating under the principles of the Dubbs cracking process. The equipment of this unit consisted of a furnace, reaction chamber, flash chamber, fractionating column, condensers, receivers, pumps and instruments for accurately controlling the operation of the plant. In this operation the charging stock, together with the heavy reflux from the bottom of the fractionating tower, passes under pressure through the furnace and then to the reaction chamber. After leaving the reaction chamber the hydrocarbon mixture passes to a flash chamber operating under reduced pressure. Separation between liquid and vapors takes place in the flash chamber, the overhead distillate vapors passing to a fractionating column, while the liquid residuum is being continuously withdrawn from the bottom. The fractionating column separates the incoming hydrocarbon mixture into gasoline distillate and reflux. The former passes off through condensers to storage, while the latter is returned to the furnace together with the incoming charging stock.

The two topped crudes used as charging stocks for the cracking unit had the following properties as listed in Table 17.

The two topped crudes were cracked in the Dubbs pilot plant with the objective of producing gasoline having an endpoint of 365° F. In all runs the residuum produced conformed to at least Bunker C fuel oil specifications. The results are shown in Table 18.

TABLE 11—ANALYSES OF GASOLINE FROM MORENI CRUDES (Engler Distillation)

Sp. gr.	Per cent to 100° C.	Per cent to 150° C.	Endpoint °C.
0.7230	88.0	98.5	155
0.7285	62.0	97.5	160
0.7447	36.0	91.5	175

TABLE 15—PROPERTIES OF CRUDE OILS

Field—	Moreni	Gura Ocnitzei
Gravity, °A.P.I.	36.0	37.2
Sulphur, per cent	0.14	0.16

100 c.c. Engler Distillation

	°F.	°F.
Initial B.P.	158	172
Distilled over, per cent:		
5	216	226
10	262	255
20	334	326
30	405	395
40	493	482
50	566	558
60	645	631
70	707	672
80	726	730
90	725	...
Per cent distilled over	98.5	99.0
Coke by weight, per cent	1.3	1.2
At 302° F.	15.5	17.0
At 392° F.	28.0	29.5
At 482° F.	38.5	40.0
At 572° F.	50.5	52.0

TABLE 17—ANALYSIS OF TOPPED CRUDE

Field—	Moreni	Gura Ocnitzei
Per cent of crude	64.1	63.5
Gravity, °A.P.I.	28.9	30.3
Flash (Cleveland O.C.), °F.	240	225
Fire (Cleveland O.C.), °F.	290	260
Flash (Pensky-Martens), °F.	195	215
Vis., Furol at 122° F., Sec.	15	13
Sulphur, per cent	0.20	0.22
Cold test, °F.	80	80
B.s. and w., per cent	*2.7	*3.0

*Wax.

100 c.c. A.S.T.M. Distillation

	°F.	°F.
Initial B.P.	440	420
Per cent distilled over:		
5	490	476
10	516	495
20	560	539
30	600	584
40	645	629
50	676	657
60	687	690
70	694	714
80	700	739
Per cent distilled over	96.5	97.0
Per cent coke by weight	3.9	3.2
Per cent at 572° F.	23.0	27.5

TABLE 18—RESULTS OF CRACKING RUMANIAN TOPPED CRUDE

Field—	Moreni	Gura Ocnitzei
Operating conditions:		
Pressure (lbs. per sq. in.)	350	250
Temperature, °F.	950	950
Yields, % of topped crude:		
Gasoline	50.0	61.3
Residuum	35.3	25.8
Gas and loss	14.2	12.9
Cracked gas:		
Cu. ft./bbl. of topped crude	663	701
Cu. ft./bbl. of crude oil	425	445

Analysis of Cracked Products

Field—	Moreni	Gura Ocnitzei
Untreated gasoline:		
Gravity, °A.P.I.	66.5	64.1
Gum, mg./100 c.c. (C.D.)	196	204
Sulphur, per cent	0.05	0.04
Octane No., Motor Method	72	71

100 c.c. A.S.T.M. Distillation

	°F.	°F.
Initial B.P.	94	86
Per cent distilled over:		
5	119	124
10	132	144
20	160	174
50	220	244
90	312	352
Endpoint	357	377
Residuum:		
Gravity, °A.P.I.	6.6	6.0
Flash (Cleveland O.C.), °F.	245	255
Fire (Cleveland O.C.), °F.	310	310
Flash (Pensky-Martens), °F.	150	150
Vis., S.F. at 122° F., Sec.	171	135
Cold test, °F.	55	60
B.s. and w., per cent	0.6	1.2
Initial B.P., °F.	443	418
Per cent at 572° F.	10.5	9.5

Treatment of the Cracked Gasolines

The two untreated gasolines were re-

(Costinued on Page 62)

TABLE 14—VACUUM DISTILLATION OF PARAFFIN-FREE FUEL OILS OF MORENI AND PROPERTIES OF THE LUBRICATING OILS

Products obtained from the fuel oil—	Per cent fuel oil	20 d—(°C.) 4	Viscosity (°Engler) 20° C.	50° C.	100° C.	Flashpoint (open cup) °C.	Cold test °C.
Light lubricating oil	18.3	0.918	3.9	....	....	140	Below —15
Heavy gas oil	12.1	....	....	....	....	....	....
Middle lubricating oil I	13.7	0.939	....	3.7	....	185	Below —10
Middle lubricating oil II	6.3	0.949	....	8.3	....	195	Calc. —10
Heavy lubricating oil	9.8	0.956	....	22.4	....	217	Calc. — 4
Cylinder stock	10.5	0.962	....	....	4.5	270	Calc. + 8
Solt asphalt	24.2	Drop point according to Ubbelohde 45° C.					

TABLE 16—RESULTS FROM TOPPING RUMANIAN CRUDE OIL

Field—	Moreni			Gura Ocnitzie		
Endpoint of gasoline, °F.	302	392	476	302	392	476
Overhead, per cent	15.9	29.3	35.0	17.1	28.7	36.9
Topped crude, per cent	83.9	70.5	64.1	82.6	71.0	63.5
Distillate loss, per cent	0.2	0.2	0.9	0.3	0.3	0.6
Total, per cent	100.0	100.0	100.0	100.0	100.0	100.0

ANALYSIS OF STRAIGHTRUN PRODUCTS

Field—	Moreni			Gura Ocnitzie		
Endpoint of gasoline, °F.	302	392	476	302	392	476
Gravity, °A.P.I.	62.1	55.6	52.1	61.1	55.9	52.2
Color	30	30	....	30	30	....
Doctor test	Neg.	Neg.	....	Neg.	Neg.	....
Gum, mg./100 c.c. (C.D.)	1	12	....	2	5	....
Sulphur, per cent	.02	.02	....	.02	.03	....
Octane No., R.M.	64	52	....	67	54	....
100 c.c. A.S.T.M. Distillation						
Initial B.P., °F.	113	130	173	113	128	162
Per cent distilled over:						
5	154	174	203	154	168	196
10	166	194	218	168	190	214
20	184	218	240	185	214	239
50	215	270	299	216	257	300
90	262	344	419	259	330	424
Endpoint, °F.	302	394	476	302	379	476
Per cent distilled over	98.0	98.0	98.0	93.0	98.0	98.0
Bottoms	0.5	1.0	1.0	1.0	1.0	1.0
Loss	1.5	1.0	1.0	1.0	1.0	1.0

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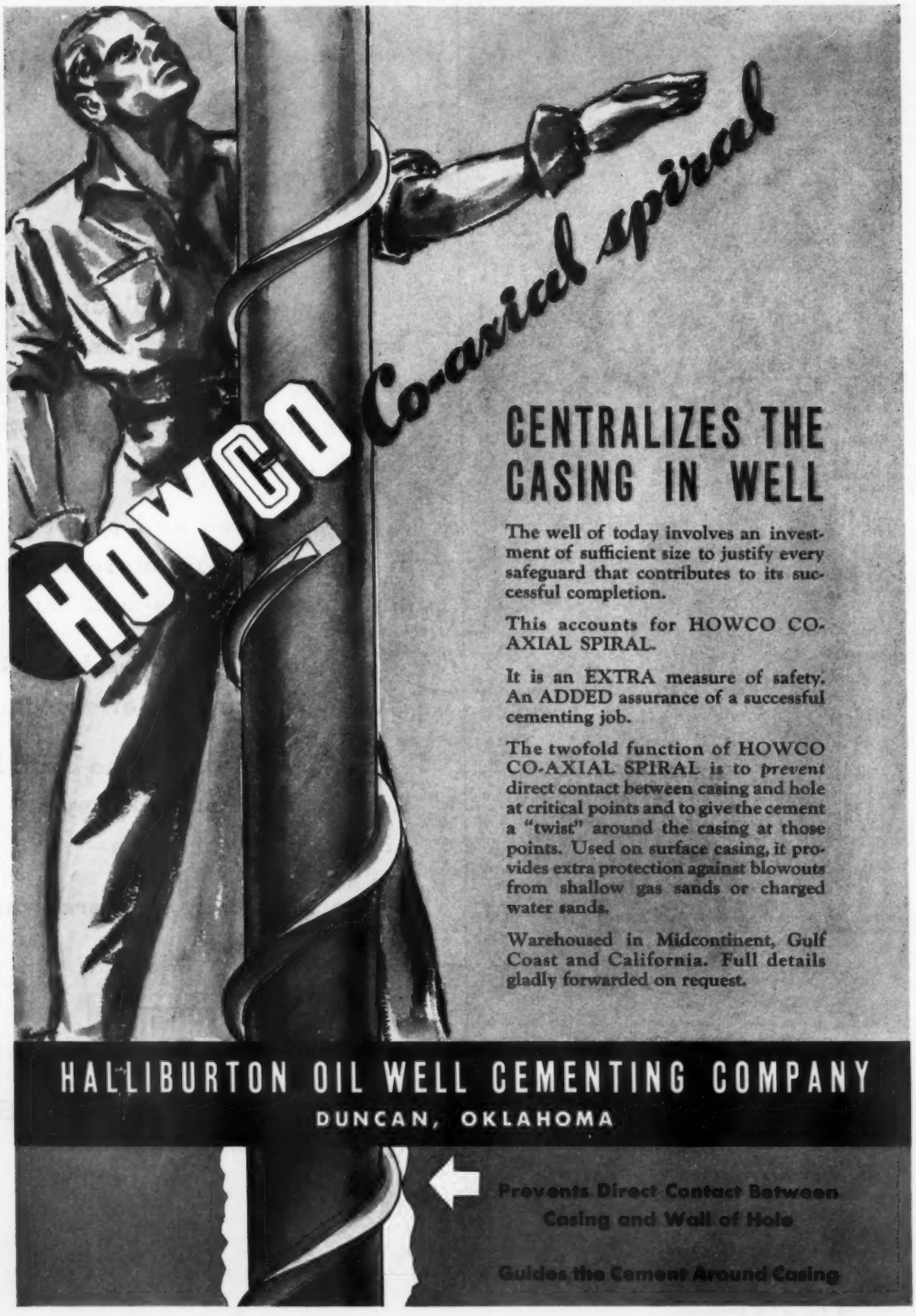
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Industrial Representation Plan Is Analyzed by President Teagle

The Standard Oil Co. (New Jersey) has prepared the following summary of the company's industrial representation plan and its workings:

What is social and economic security, the subject of so much discussion in recent months in connection with proposals for new government policies? Reduced to the simplest terms, it means an industrial set-up in which workers enjoy the fullest possible regularity of employment, earn a living for themselves and their dependents and accumulate reserves against illness, disability or old age. quaintanceship and left a definite feeling of loss. On April 1, 1918, representatives of wage earners in the New Jersey refineries, elected by their fellow employes, met with executives of the company at 26 Broadway in the first joint conference. Many of the important features of the plan today have been retained substantially as adopted at this meeting.

The original agreement enunciated, and all later ones include, the following pro-Standard Oil Co. (New Jersey) employes are helped to provide for the future by the extension of opportunities to acquire insurance and a competence through annuity and investment plans, these supplementing other provisions for welfare provided at the company's expense.

Representation Plan

With this company, industrial representation had its origin in the need for informal and regular contact between large groups of employes and management, comparable to the personal relationship which brings the employer and his workers in small organizations into close daily touch. The expansion of the Standard Oil Co. (New Jersey) organization largely effaced this intimate acvision: "No discrimination shall be made because of membership or non-membership in any church, society, fraternity or union." The right of collective bargaining was guaranteed the employes at that first conference, so that the concept of Section 7(a) of the National Industrial Recovery Act of 1933 which established the right to collective bargaining and non-discrimination for organization membership has been the basis of Standard Oil Co. (New Jersey) industrial relations for more than 16 years. The wage policy was defined and various plans for social and economic security have been developed out of the exchange of views at various joint conferences.

The original agreement provided that the company will pay at least the prevailing scale of wages for similar work in the locality and will take into consideration fluctuations in the cost of living as reported by the U. S. Bureau of Labor Statistics.

Recognizing the individual's right to protection against the unfair loss of his job, the joint conferences agreed on a list of offenses for which an employe might be discharged without notice. Such a list is posted on all plant bulletin boards. It was also agreed that for other offenses, not on the posted list, an employe could not be discharged unless he had previously been notified in writing that repetition of the offense would render him liable to dismissal.

With but few important changes, the representation plan as adopted in the New Jersey plants was subsequently extended to all other branches of the business. In the course of its evolution it was amended by the elected representatives to emphasize the fact that elections are entirely in the hands of the employes, with no participation by management. A number of the joint conferences adopted a provision for arbitration to apply if a case has been appealed through the regular channels to the board of directors, resulting in a decision not acceptable to one-fourth or more of the men in the joint conference.

Joint Conference

Each year employes in every plant or district hold elections by secret ballot for representatives. The latter meet by themselves and also meet periodically with representatives of the management, to discuss and settle questions of mutual interest, including recommendations as to wages, hours and working conditions.

Certified minutes of all regular meetings are available to any employe. A list of elected representatives is carried on the plant bulletin board.

Procedure in Handling Cases

The several stages in a case on appeal may vary in different localities, but the essential procedure is as follows:

1. The employe concerned should first approach his foreman or supervisor in an effort to secure adjustment.

2. If this fails or if he prefers to have his representative intercede in his behalf, he should consult a representative of his own division. The latter should then try to adjust the difficulty with the foreman, unless he thinks that the employe has no real grievance, in which event he should try to make this fact clear to the complainant.

3. When the representative and the foreman are unable to adjust the disagreement to the satisfaction of all concerned, either the representative, the foreman or the employe directly concerned may bring the case before the personnel or industrial relations office.

4. If these agencies are unable to adjust the disagreement the usual practice is to submit it to a division conference composed of all the elected and appointed representatives. If this group is unanimous in its finding and is sustained by the superintendent the decision is final.

5. If the division conference cannot agree unanimously, the next step is to carry the case to the general joint conference.

6. If the general joint conference cannot come to a decision, or if either side wishes to appeal, the case may then be taken to company officials in their order or to the directors.

7. Some joint conference agreements provide for arbitration where the decision of the directors is not satisfactory to one-fourth or more of the participants in the joint conference.

Experience under representation is that most cases are satisfactorily settled between the representative and the foreman and that few go beyond the division conference.

Training as an Investment

The company has operated on the principle that a loyal, efficient body of employes is its greatest asset and its best guaranty of success in the future. Bricks and steel may be assembled where and when needed and quickly fashioned into a new plant, but an efficient organization cannot be built in the same short time. It is a slow growth through the years, and involves a considerable investment in each new employe represented by the cost of training him. The company is proud of its record for almost a minimum labor turn-over and of the unusual percentage of its employes who have never had any other job. A great many have retired after continous service of from 40 to 50 years.

The company has never regarded labor as a commodity to be bought in the cheapest market and has avoided, so far as possible, destroying the individual's identity through group classification. The company views it not as philanthropy but as good business to insure so far as it can the welfare of employes and their families. Workers constantly worrying over their finances and obsessed by fear of a time to come when they may be unable to provide for their families cannot give their best to their jobs. As they obtain social and economic security they gain in efficiency and usefulness.

No matter what his occupation, every adult worker faces these questions:

What will become of me and those I am taking care of if I lose my job?

How will things work out if I have a long illness, or am laid up by an accident?

How would my dependents get along if I should die?

How can I put by enough to live on when my active working days are over? With the best of luck the time will come when I cannot hold a regular job even though I expect to live many years longer. And how can I set aside money to provide for my children's education and take care of other expenses outside of the day to day bills?

Standard Oil Security Plans

None of us can prepare for all the contingencies of life. It would be too much to hope that a majority of employes could work out satisfactory answers to all of the foregoing questions. Yet it is gratifying that so many have gone a long way towards providing safeguards against the demands of illness, old age and death. Some of the plans, such as vacations with pay, accident and sickness benefits, apply automatically to all employes after the probationary period. Other features, such as the acquisition of stock and life insurance, are optional with the employe, but offered on terms designed to make them attractive. Information about each of these features is briefly outlined but it should be understood that this summary in no way affects the text of the plans as published in full in various booklets. Where more specific and complete details are wanted, copies of the particular booklet should be obtained from the superintendent, manager or industrial relations office.

Death Benefits: Group Insurance

Death Benefits.—When a breadwinner dies his dependents are usually in need of immediate help to tide them through the period while they are readjusting their affairs. In recognition of this common problem, when the first representation plan was adopted in 1918, the company provided for the payment of death benefits. These payments are made by the company without any contribution

THE PROGRAM SUMMARIZED

Wages—Never less than the prevailing scale for similar work in the community.

Vacation—At least one week's vacation with pay after one year's service.

Sickness—Half pay benefits ranging from six weeks after one year's service to 52 weeks after 10 years' service.

Accident—Full pay benefits for first 16 weeks, two-thirds pay for succeeding 36 weeks.

Unemployment—In addition to notice or its equivalent, cash allowance depending on age and service, ranging from one week's to one year's pay, if employe does not qualify for annuity.

Partnership—Opportunity after one year's service to purchase company stock on installments, company contributing 50 cents for each employe dollar.

Old Age—Life annuity starting at age 65—men (women 55)—after 20 years' service. Company guarantees 1 per cent for each year of service based on wage earnings for five years prior to retirement. Employe has option of doubling the amount by contributions. For service prior to January 1, 1932, company, at its expense, has provided for full 2 per cent.

Death—Death benefits without cost to employes of one or more years' service, amounts depending upon service, rate of pay and relationship or dependency of beneficiary.

Group life insurance available to employes without physical examination after one year's service. Present cost to employes 64 cents per month per $1,000.

New Jersey Co. Report on Co-operative Type of Collective Bargaining

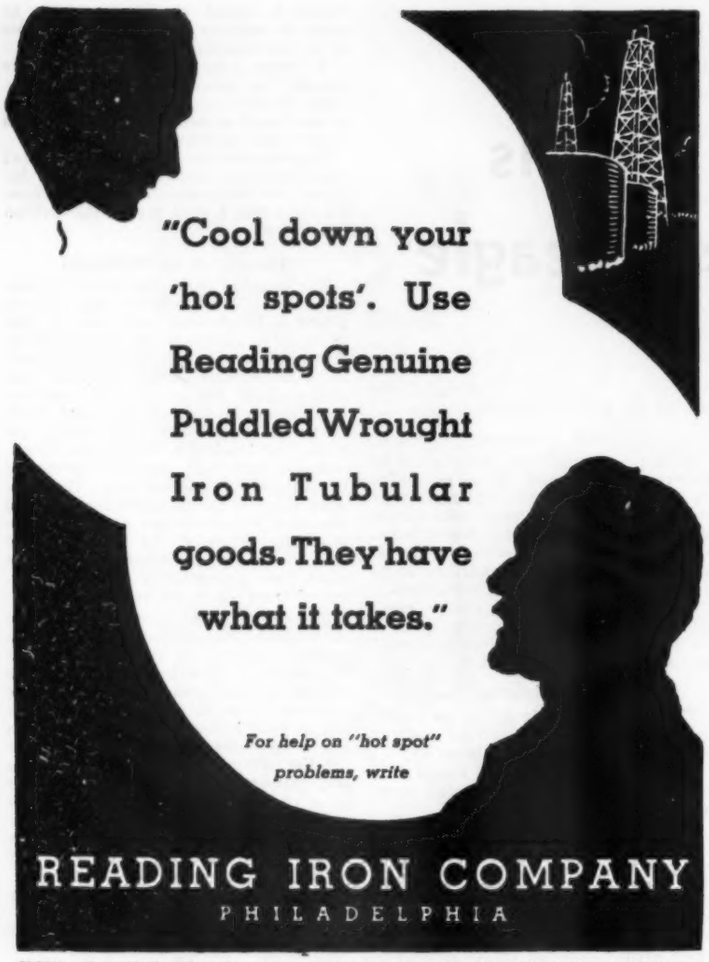
Requests for a report on the functioning of the Industrial Representation Plan adopted 16 years ago led to the preparation of this statement. It is a synopsis of the accomplishments of mutual efforts by you and the company to improve working conditions and promote industrial harmony.

The right to deal collectively with management on matters affecting employment is now assured to all workers through the National Industrial Recovery Act. At best a law can only lay down basic requirements. It will be many years before the collective bargaining idea is developed in industry generally to the extent attained in our organization since 1918.

Collective bargaining may be approached either from a selfish or a co-operative basis. Our meetings have reflected a sincere effort to deal fairly with all concerned. In our various activities there has been no definite line between management representatives and other employes, because an employe may be in the wage-earner group today and be representing management tomorrow. Relationships between men and management, therefore, become a matter of determining what is best for employes, management and stockholders.

Our joint conferences are agencies which, with continuing mutual confidence and good will as their basis, should succeed as in the past in solving our day to day problems. In the last analysis, the question as to whether or not this co-operative type of collective bargaining shall continue is in your hands.

WALTER C. TEAGLE,
President.
Standard Oil Co. (New Jersey).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For quiet operation —for exact regulation

WHEN demands are fluctuating, under light loads as well as heavy, a Vigilant Liquid Level Regulator with V-port Valve is recommended. Wide-open, it has a capacity equal to that of the pipe. When flow is at minimum, the V-port Valve assures free throttling action. There is a C-F regulator exactly suited to every requirement of gas control. Well known for more than 40 years. Catalog on request.

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from employes. Originally, the plan included death benefits to a maximum of $2,000 for employes' dependents, the employes becoming eligible after one year of service. These benefits were provided on the following scale:

Service—	Maximum benefits
1 year	3 months' full pay
2 years	5 months' full pay
3 years	7 months' full pay
4 years	9 months' full pay
5 years up	12 months' full pay

Changes were made in the original plan in 1925 and again in 1932. For employes who are subscribers to group insurance the maximum death payment is $3,000 after five years' service, and a full year's salary after 10 years. The requirements as to dependency likewise are more liberal for those employes who are subscribers under the group insurance plan.

In 1933 deaths of employes and annuitants eligible to death benefits totaled 255. Death benefits (as distinguished from group insurance) paid by the company to beneficiaries under the plan totaled $401,411.

Group Insurance. — Realizing the advantages of buying life insurance in a large block, which makes a much lower rate possible, a number of joint conferences asked for an arrangement permitting the employes to increase the amount of protection at their own expense. This recommendation resulted in a contract between the company and the Equitable Life Assurance Society which became effective January 1, 1932. It permitted employes to purchase life insurance without examination, regardless of age or other qualifications, at a low group rate and to have premiums deducted from their pay envelopes.

The following table shows the amount of insurance for which an employe is eligible and the present cost:

Annual earnings—	Amount of insurance	Subscriber's cost per month*
Less than $1,200	$1,500	$0.96
$1,200 or more but less than $2,200	2,000	1.28
$2,200 or more but less than $3,100	3,000	1.92
$3,100 or more but less than $4,000	4,000	2.56
$4,000 or more but less than $4,900	5,000	3.20
Etc.		

*The present cost per $1,000 is 64 cents per month ($7.68 per year).

At this writing employes are carrying a total of over $78,000,000 of insurance obtained under this plan. Of the employes eligible, 92 per cent are subscribers. In 1933, 159 of the insured died and $422,000 was paid to beneficiaries.

Unemployment Benefits or Termination Allowances

In 1926 a plan was adopted for cash lay-off allowances, covering employes not eligible for an annuity, when their services were terminated because of lack of work. The program has been maintained throughout the depression. These lay-off allowances vary in amount with age and length of service. The minimum is pay for the regular notice period, two weeks being allowed after five years of service, and the maximum, pay for a full year. In 1932 such allowances paid by the company amounted to $377,333; in 1933, to $215,346. Since the beginning of the depression in 1929 more than $1,000,000 has been paid to employes laid off.

Annuity or Pension Plan

A formal annuity plan made effective with industrial representation in 1918 contained a provision for life annuity at age 65 after 20 or more years of service. The amount of the annuity was arrived at by taking the average earnings of the employe for the last five years of his service and multiplying this by 2 per cent for each year, the maximum annuity obtainable being fixed at 75 per cent of the average earnings. A change was made on January 1, 1932, without disturbing the rights of employes accumulated up to that date. The present arrangement is for a 1 per cent annuity for each year of service, with opportunity to double the amount if employes choose to contribute about half of the additional expense to the company. This means that from 1932 on, employes obtain a 2 per cent per annum retirement allowance by paying approximately one-quarter of the total cost.

Under this arrangement employes who choose to do so contribute between 3 and 5 per cent of their earnings, the amount varying with the age of entry into the plan. Contributions made by an employe are returned with accumulated interest upon his death or withdrawal from the plan for any reason other than retirement. Of those eligible, 64 per cent are participating in the contributory feature of the plan.

The Standard Oil Co. (New Jersey) has regularly set aside definite sums to make provision for pensions for employes still in the service as well as for those retired. The total amount thus set aside was nearly $67,000,000 on September 1, 1934. Up to that date the total amount contributed by employes since the amendment to the plan in 1932 was more than $3,750,000. Company and employe contributions are carried in a trust fund. During 1933 annuity disbursements from this fund were in excess of $2,000,000. A total of 1,719 retired employes were on the pension roll as of September 30, 1934.

The company's annuity plan is now being studied in the light of present day conditions. Any amendments which may be made as a result of this study will not affect annuity credits accumulated to the date of the change. Pending such revision, those employed subsequent to January 1, 1934, are not eligible to participate in the present annuity plan.

Sickness Benefits

To lessen the financial strain of illness, the company has endeavored to provide at its own expense reasonable financial security for employes when they are unable to do their work. Through this plan the company pays sickness benefits to wage earners who are disabled by illness for more than seven consecutive days, this including accidental injuries not incurred while at work. These benefits amount to half of normal pay. Employes are entitled to them for varying periods depending upon the length of service, as indicated in the following schedule:

Service—	Maximum benefits
1 year	6 weeks
2 years	11 weeks
3 years	16 weeks
4 years	21 weeks
5 years	26 weeks
6 years	31 weeks
7 years	36 weeks
8 years	41 weeks
9 years	46 weeks
10 years and over	52 weeks

Special consideration is given to cases of pulmonary tuberculosis to assure, so far as possible, convalescent treatment for the employe and reasonable provision for his dependents during the period of treatment.

Accident Benefits

The original plan provided accident benefits in accordance with the sickness provisions. Several joint conferences presented the view that this was not equitable for employes who incurred injuries in the course of their duties. To meet this criticism the company adopted in 1920 provisions for accident benefits as follows:

1. Full pay for the first 16 weeks of disability.

2. Two-thirds of full pay for the next 36 weeks of disability.

3. Benefits in accordance with the governing compensation law where a disability continues more than one year.

Regardless of legal requirements that would be satisfied by less considerate treatment the company also provides for

★Here's HOW THEY ARE **SAVED**

Where your V-belt bends around its pulley—where it grips the sheave to pull its load—*that's* where the story of its efficiency is told!

When any V-belt bends, it is forced to *change* its *shape,* The top, under tension, becomes narrower. The bottom, under compression, grows wider. Figure 1 (right) shows the resulting shape-change in a straight-sided belt. Note the out-bulge of the sides. Now look at Figure 2. There you see how the patented concave side is *precisely engineered* to compensate the shape-change due to bending.

Results? The V-belt with the concave side bends to an *exact fit* in the sheave groove. There is no out-bulge at the sides. This means uniform wear—longer life—*economy.* The full side-wall uniformly grips the pulley, carrying heavier loads without slippage—a big increase in drive efficiency.

The Gates Vulco-Rope Drive is the *only* V-belt built with the patented concave side.

WHAT HAPPENS *When a* V-Belt **BENDS**

Fig. 1. *Straight-Sided Belt*

Fig. 2. *Belt with Patented* CONCAVE *Side*

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Engineering Offices and Stocks in All Large Industrial Centers

GATES VULCO ROPE DRIVES

all necessary medical and hospital care for industrial injuries.

Medical and Health

The company maintains completely equipped medical departments, doctors and nurses to help employes to avoid or reduce absences through illness. This service in most plants includes a periodic physical examination which has frequently brought to light conditions unsuspected by the employe but which he was then able to correct to forestall more serious trouble. This medical and health service is primarily a plant facility and does not displace the customary employment of the family physician and dentist. In domestic plants the company was employing as of December 1, 1934, on full time 22 physicians, 2 dentists, 4 X-ray men and 24 nurses.

Stock Subscription (Saving Plan)

When the United States declared war the company co-operated with the Government in placing Liberty Loans, both by lending every encouragement to meetings at which employes were urged to subscribe to the bonds and by making such subscriptions more effective by deducting installments from employes' pay when so requested. With the ending of this campaign many workers who had become investors for the first time asked that opportunity be given them to continue regular savings through the provision of some other form of sound investment. Joint conferences petitioned that employes be given a chance to become partners in the business through the purchase of company stock. A plan to effect this, beginning January 1, 1920, and running for five years, was worked out and approved by the stockholders. After its expiration, three further plans were successively approved, each running for three years. A fifth plan was authorized to start January 1, 1935.

All employes with at least one year of continuous service are eligible to subscribe up to 10 per cent of their earnings. To each dollar saved in this manner the company adds 50 cents. The fund is invested by trustees in common stock priced for each half year on the basis of the average price of all sales recorded on the stock exchange in the preceding three months. Under this plan a creditable percentage of the employes have accumulated investments, which in most cases they would not otherwise have had.

In the first three plans 35,949 employes acquired 1,716,553 shares, of which they still hold 769,464. The fourth plan, soon to be closed, will result in the distribution of approximately 400,000 shares to 16,500 employes.

Vacations

In 1923 there was inaugurated a week's vacation with pay for all wage earners after a year's service. Three years later, as a result of recommendations by the joint conferences, the plan was liberalized to provide for two weeks' vacation with pay for employes after five years' service.

Safety

Development of a program to minimize accidents was one of the first co-operative efforts of the joint conference. In most plants or divisions, committees of elected and appointed representatives meet periodically to review accidents and to suggest ways and means of reducing them in future. Sometimes these committees also act as inspectors to supplement the efforts of the safety department in pointing out accident hazards and unsafe practices. In many fields committees hold monthly meetings of all employes to promote the safety program.

The effectiveness of this co-operative effort is shown by a marked reduction of the accident rate during the past 12 years.

Service Buttons

In 1922 there was instituted the award of gold service buttons to employes. A plain emblem marks completion of the first 10 years' service, with a diamond added at the end of each additional period of 10 years. At the close of 1933, 52 per cent of the regular domestic employes held service buttons.

Stimulating Ideas

The man closest to a job should be able to suggest improvements in methods or equipment having to do with his work. To encourage this interest and to obtain for the company constructive thoughts and suggestions of all its employes, there was adopted a "Coin Your Ideas" plan in 1918. Committees pass on ideas submitted and award cash prizes to those with merit. To date 2,050 payments have been made covering many suggestions which have brought about improvement in efficiency, safety or working conditions. Committees of elected and appointed representatives in most plants or divisions assist in administration.

Disseminating Information

To keep employes and stockholders currently informed on policies, developments and important changes in personnel, the parent company publishes The Lamp every month. Primarily for the benefit of its employes, the sales department publishes each month The Salesmotor. The Standard Dealer is issued as an aid to dealers. The larger refineries have their plant papers.

Education

Special training to qualify employes for advancement is provided. Specific job training is accomplished by instruction and meetings on the job. This is supplemented by educational classes on specific subjects by competent instructors. Opportunities are also available to supervisors for special instruction in the problems relating to their work. The educational refund plan assists employes who undertake work in night schools, colleges and other training institutes. Such employes are refunded half of their tuition if their courses are satisfactorily completed.

Industrial Relations Office

Originally this department was known as the employment office; later, with the discovery of the need for broader work to assist in the functioning of the industrial relations program, it became the personnel or industrial relations office. Through this are handled employment, medical service, safety matters, educational and training work, together with the local administration of the various benefit plans. This department maintains records of service and other information regarding employes and is thus able to be of assistance to representatives and other employes who have problems on which they wish advice.

Conclusion

In the foregoing paragraphs the principal policies and organization practice developed through joint conferences have been briefly outlined. More detailed descriptions are available in special booklets covering the different plans. The Standard Oil Co. (New Jersey) program is not complete nor final in form. Effort has been made to keep it sufficiently flexible to permit of changes dictated by conditions. Sound industrial relations are not static; they cannot be definitely fixed by legislation nor by arbitrary rulings by management. They can be developed over the years if they grow out of a real desire on the part of both employes and employer to achieve and continue a workable, co-operative basis.

APPROVES COMPACT

Commenting upon the interstate oil compact draft agreed upon at Dallas, Tex., last month the Texaco Star, published by the Texas Co., says editorially:

"As is the case with such legislation, it represents a compromise of views. The chief advantage of any compact is in providing a medium for free, informal and lawful conferences between the oil producing states in order that the petroleum resources of those states may not be wasted and that one state may have the benefit of the counsel of other states in the development of a national plan.

"Much credit is due Governor Marland for initiating the movement and to Governor Allred and the representatives of the other governors for agreeing upon this program."

Judge C. B. Ames, chairman of the board of directors of the Texas Co., has been a leading advocate of an interstate compact plan.

TIDE WATER ASSOCIATED

NEW YORK, Mar. 11.—Tide Water Associated Oil Co. has voted to pay a dividend of $2 a share on its 6 per cent cumulative convertible preferred stock in liquidation of the unpaid balance of 50 cents which was due October 1, 1934, and the $1.50 quarterly dividend due January 1, 1935. This payment is to be made on April 1, 1935, to stockholders of record March 11, 1935. Dividends on the 6 per cent cumulative convertible preferred stock were resumed in December, 1933, since which time total dividends in the amount of $10 per share have been paid.

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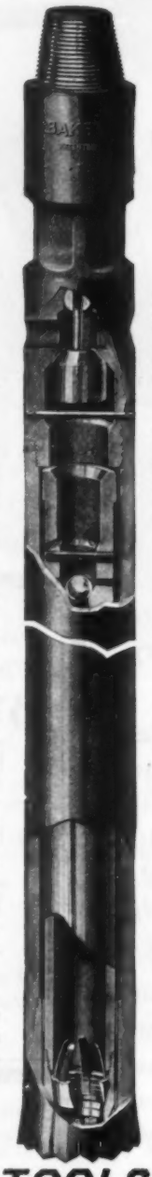
Each core is like a book—you open it and study it. It tells you where to locate casing seats for water shut-offs. It tells you whether the sands are dry, or water-bearing, or oil bearing. You can determine the porosity—in fact you can KNOW every important fact.

And any cable tool driller can use it successfully. Thousands have operated the Baker Cable Tool Core Barrel over a period of many years. Merely see that the two valves are in good working condition—place the core barrel in the same position as an ordinary bit—and keep the inner core tube on the bottom all the time you are drilling.

Just do these simple things and you will get PERFECT cores every time—at less cost than is possible by other methods, and without loss of drilling time.



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When the core barrel is in operation the fluid is forced downward between the outer and inner tubes serving to keep the cutting teeth of the drill shoe and trimmer shoe cool and clean.

Fast Drilling
In most formations, coring is as fast as drilling. Drillers often make as much hole with the Baker Cable Tool Core Barrel as they do with regular bits.

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Core recoveries with the Baker Cable Tool Core Barrel are always high—100% recovery of perfect core is not unusual—85% recovery is the average under all conditions.

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This is one of the new International Model C-40 Trucks recently purchased by the Consolidated Oil Well Cementing Corporation, Longview, Texas. The equipment shown on this International consists of a patented cement mixer, two steam pumps, and a fluid tank, and is used to cement casing in oil and gas wells.

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INTERNATIONAL TRUCKS

Summary of Operations in All Fields for February, 1935

SUMMARY OF ALL FIELDS

Wells Completed

	Comp.	Prod.	Dry	Gas
Pennsylvania Grade	201	452	17	46
Lima	7	5	2	4
Central Ohio	44	317	12	22
Indiana	35	110	13	17
Illinois	2	257	2	0
Kentucky	9	270	2	1
Michigan	26	5,487	4	3
Kansas	93	59,141	15	4
Oklahoma	109	37,719	26	11
North Central Texas	175	9,367	80	3
West Texas	46	19,211	6	0
Texas Panhandle	50	19,205	2	8
East Central Texas	19	428	11	1
East Texas	318	15,765	7	0
East Texas Gas Field	3	0	3	0
Gulf Coast, Texas	74	22,661	17	7
Southwest Texas	95	11,332	47	5
North Louisiana	20	462	8	4
Gulf Coast, Louisiana	26	10,947	10	0
Arkansas	15	1,468	9	0
Alabama	1	0	1	0
Mississippi	1	0	1	0
Montana	4	10	0	2
New Mexico	17	22,433	6	1
Total February	1,391	236,997	301	139
Total January	1,428	210,287	358	120
Difference	37	26,710	57	19

Rigs and Wells Drilling

	Rigs	Drlg.	Ttl.
Pennsylvania Grade	56	176	232
Lima	2	31	33
Central Ohio	35	116	151
Indiana	0	30	30
Illinois	0	11	11
Kentucky	2	16	18
Michigan	126	149	275
Kansas	61	199	260
Oklahoma	79	475	554
North Central Texas	53	220	273
West Texas	53	180	233
Texas Panhandle	36	122	158
East Central Texas	13	49	62
East Texas	116	197	313
East Texas Gas Field	2	11	13
Gulf Coast, Texas	42	119	161
Southwest Texas	38	138	176
North Louisiana	29	64	93
Gulf Coast, Louisiana	22	72	94
Arkansas	19	45	64
Alabama	1	3	4
Florida	1	0	1
Mississippi	3	12	15
Montana	9	38	47
Wyoming	6	69	75
Colorado	2	25	27
New Mexico	18	90	108
Utah	1	13	14
Total February	827	2,670	3,497
Total January	819	2,553	3,372
Difference	8	117	125

Oklahoma Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Osage	12	928	4	0
Noble	3	4,598	0	0
Garvin	1	0	1	0
Pontotoc	13	18,930	1	0
Lincoln	1	280	1	0
Pottawatomie	8	1,803	1	0
Seminole	18	6,324	4	3
Pittsburg	1	0	0	1
Comanche	1	0	1	0
Grady	1	0	1	0
Logan	4	3,497	1	0
Caddo	1	0	1	0
Creek	13	676	3	1
McIntosh	1	0	1	0
Muskogee	2	22	0	0
Okfuskee	2	80	0	1
Okmulgee	8	45	3	3
Marshall	2	20	1	0
Jefferson	2	70	0	0
Carter	6	404	1	0
Stephens	6	42	1	2
Total February	109	37,719	26	11
Total January	127	33,997	47	12
Difference	18	3,722	21	1

Note—Initial production of flush pools in Oklahoma, all of which are prorated, represents only the volume of oil produced on short time gauges ranging from one to six hours.

Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Murray	2	6	8
Coal	0	2	2
Atoka	0	10	10
Carter	3	16	19
Stephens	0	15	15
Jackson	4	17	21
Jefferson	0	8	8
Marshall	0	9	9
Choctaw	0	2	2
Love	0	1	1
McCurtain	0	1	1
Bryan	0	1	1
Garvin	0	4	4
Pontotoc	4	64	68
Comanche	0	7	7
Grady	0	2	2
Greer	1	1	2
Pittsburg	0	3	3
LaFlore	0	1	1
Pottawatomie	3	34	37
Seminole	8	35	43
Hughes	0	9	9
Caddo	1	2	2
Kiowa	0	1	1
Beckham	0	2	2
Okfuskee	4	14	18
Cleveland	0	2	2
Oklahoma	8	23	31
Okmulgee	3	17	20
Lincoln	2	10	12
McIntosh	0	3	3
Canadian	1	1	2
Muskogee	0	7	7
Logan	1	17	18
Kingfisher	0	1	1
Creek	6	44	50
Blaine	0	1	1
Payne	0	2	2
Tulsa	0	4	4
Pawnee	0	4	4
Osage	25	51	76
Noble	2	12	14
Ellis	0	1	1
Garfield	0	2	2
Alfalfa	0	2	2
Kay	0	3	3
Grant	1	0	1
Texas	0	1	1
Total February	79	475	554
Total January	97	459	556
Difference	18	16	2

Kansas Fields

Summary of Completed Wells

County—	Comp.	Prod.	Dry	Gas
Russell	13	3,806	1	0
Rice	12	9,481	1	0
Reno	16	33,500	1	1
Marion	2	580	1	0
McPherson	8	1,469	3	0
Harvey	2	3,264	0	0
Butler	7	468	1	0
Barton	3	275	0	0
Kingman	2	232	0	0
Rush	3	0	0	3
Sedgwick	7	3,645	1	0
Ellsworth	1	1,369	0	0
Stafford	1	880	0	0
Pratt	1	0	1	0
Cowley	4	50	1	0
Elk	3	62	1	0
Greenwood	5	60	2	0
Total February	93	59,141	15	4
Total January	75	49,975	17	0
Difference	18	9,166	2	4

Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Rooks	2	1	3
Russell	8	33	41
Trego	1	2	3
Ellis	0	1	1
Saline	0	1	1
Dickinson	0	1	1
Ellsworth	3	13	16
Barton	5	5	10
Marion	1	1	2
McPherson	3	22	25
Rush	0	1	1
Rice	11	29	40
Ness	1	1	2
Scott	0	1	1
Harvey	2	9	11
Reno	12	41	53
Safford	0	1	1
Butler	3	12	15
Greenwood	0	1	1
Sedgwick	3	11	14
Sumner	2	3	5
Kingman	1	1	2
Cowley	2	3	5
Barber	0	1	1
Elk	1	4	5
Total February	61	199	260
Total January	52	208	260
Difference	9	9	0

East Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Anderson	4	235	0	1
Cherokee	1	0	1	0
Falls	1	0	1	0
Freestone	2	0	2	0
Gregg	142	3,027	2	0
Hill	0	0	1	0
Limestone	1	0	1	0
McLennan	1	0	1	0
Navarro	1	0	1	0
Red River	1	0	1	0
Rusk	123	5,273	4	0
Smith	30	1,378	0	0
Upshur	22	1,087	0	0
Van Zandt	7	193	2	0
Wood	1	0	1	0
Total February	337	16,193	18	1
Total January	350	16,558	22	1
Difference	13	365	4	0

Rigs and Wells Drilling

County—	Rgs.	S.D.	Dlg.	Ttl.
Anderson	4	0	4	8
Bowie	0	1	0	1
Cherokee	2	3	1	6
Ellis	0	1	0	1
Falls	0	0	2	2
Freestone	2	0	1	3
Gregg	55	2	65	122
Harrison	1	1	2	4
Henderson	0	1	1	2
Hill	0	0	1	1
Hunt	0	1	1	2
Kaufman	0	2	1	3
Limestone	1	1	4	6
Morris	0	1	2	3
Nacogdoches	0	0	2	2
Navarro	0	5	2	7
Rains	0	0	1	1
Red River	0	1	0	1
Rusk	37	2	76	115
Smith	17	2	23	42
Titus	1	0	0	1
Upshur	7	0	23	30
Van Zandt	3	7	5	12
Wood	1	0	0	1
Total February	131	31	215	377
Total January	123	54	159	336
Difference	8	23	56	41

North Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Archer	61	4,560	19	0
Brown	4	15	3	0
Callahan	3	0	3	0
Coleman	4	278	0	0
Cooke	4	1,800	3	0
Eastland	1	3	0	1
Foard	1	0	1	0
Jack	3	3	2	0
Montague	7	546	4	0
Palo Pinto	4	30	2	0
Shackelford	20	663	10	1
Stephens	1	0	1	0
Throckmorton	1	0	1	0
Wichita	21	401	11	0
Wilbarger	3	114	1	0
Young	36	954	19	0
Total February	175	9,367	80	2
Total January	170	8,259	76	4
Difference	5	1,108	4	2

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Archer	15	6	58	79
Brown	1	5	4	10
Callahan	1	1	3	5
Clay	0	1	2	3
Coleman	0	2	3	5
Comanche	0	0	2	2
Cooke	3	1	10	14
Denton	0	1	0	1
Eastland	2	5	4	11
Erath	0	1	1	2
Foard	0	0	1	1
Grayson	0	1	0	1
Hardeman	0	1	2	3
Hamilton	0	1	1	2
Jack	1	3	8	12
Lampasas	0	1	0	1
Mills	0	2	0	2
Montague	5	0	7	12
Palo Pinto	1	0	3	4
Parker	0	2	1	3
Shackelford	4	2	12	18
Stephens	0	3	1	4
Tarrant	0	1	0	1
Throckmorton	0	1	6	7
Wichita	5	1	12	18
Wilbarger	1	1	5	7
Wise	0	3	0	3
Young	14	2	26	42
Total February	53	48	172	273
Total January	63	61	153	277
Difference	10	13	19	4

West Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Andrews	1	120	0	0
Crane	2	1,044	1	0
Ector	4	2,506	0	0
Fisher	2	216	0	0
Glasscock	2	91	0	0
Howard	4	1,341	1	0
Jones	1	0	1	0
McCulloch	1	0	1	0
Pecos	5	3,918	1	0
Reagan	1	45	0	0
Runnels	2	100	0	0
Upton	2	3,121	0	0
Ward	16	5,572	0	0
Winkler	3	1,137	1	0
Total February	46	19,211	6	0
Total January	62	17,921	16	0
Difference	16	1,290	10	0

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Andrews	2	0	5	7
Brewster	1	2	2	5
Cochran	1	1	0	2
Coke	0	0	1	1
Crane	2	1	6	9
Crockett	0	2	1	3
Culberson	0	3	1	4
Dawson	0	0	1	1
Ector	2	2	19	23
El Paso	0	1	0	1
Fisher	1	1	3	5
Glasscock	3	3	2	8
Howard	5	4	13	22
Jeff Davis	0	1	0	1
Jones	1	5	1	7
Loving	1	2	1	4
Lynn	0	0	1	1
Martin	0	1	0	1
McCulloch	0	0	5	5
Mitchell	0	2	0	2
Pecos	7	5	5	17
Presidio	0	1	0	1
Reagan	1	0	2	3
Reeves	1	1	0	2
Runnels	0	5	1	6
Schleicher	0	2	0	2
Scurry	0	1	1	2
Sterling	0	1	0	1
Stonewall	0	1	0	1
Sutton	0	0	1	1
Taylor	1	1	0	2
Terrell	0	1	0	1
Upton	5	5	6	16
Ward	10	9	20	39
Winkler	9	6	12	27
Total February	53	70	110	233
To.al January	52	68	103	223
Difference	1	2	7	10

Texas Panhandle

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Carson	2	160	0	1
Gray	23	5,029	1	2
Hutchinson	11	1,520	1	1
Moore	1	0	0	1
Wheeler	13	12,496	0	3
Total February	50	19,205	2	8
Total January	51	13,701	4	4
Difference	1	5,504	2	4

Rigs and Wells Drilling

County—	Rgs.	S.D.	Dlg.	Ttl.
Carson	0	0	10	10
Childress	0	0	2	2
Collingsworth	0	1	1	2
Cottle	0	0	1	1
Gray	14	5	40	59
Hutchinson	4	7	14	25
Moore	0	0	4	4
Ochiltree	1	0	0	1
Potter	0	1	0	1
Randall	0	1	0	1
Roberts	0	1	0	1
Wheeler	17	13	21	51
Total February	36	29	93	158
Total January	32	19	102	153
Difference	4	10	9	5

Southwest Texas Fields

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rigs	Dlg.	Ttl.
Agua Dulce	0	0	0	0	0	1	1
Alta Mesa	2	0	2	0	0	0	0
Angelita	0	0	0	0	0	1	1
Arroyo Grande	1	0	1	0	0	0	0
Barbacoas	1	0	1	0	1	0	1
Blas Uribe	1	0	1	0	0	0	0
Burnel	0	0	0	0	0	1	1
Byersville	1	0	1	0	0	0	0
Caesar	1	1,440	0	0	1	3	4
Carroll	1	65	0	0	0	0	0
Cedar Creek	0	0	0	0	0	1	1
West Cole	6	2,125	1	0	2	9	11
North Dale	1	0	1	0	0	1	1
Darst Creek	1	0	1	0	0	1	1
Driscoll	0	0	0	0	0	1	1
Sam Fordyce	3	2,889	0	0	4	6	10
Government Wells	12	1,660	2	0	4	9	13
Henne-Winch-Fariss	0	0	0	0	0	1	1
Jacobs	5	358	2	0	1	2	3
Jennings	1	15	0	0	0	1	1
Kingsville	0	0	0	0	1	0	1
Loma Nova	2	848	0	0	0	0	0
Los Olmos	0	0	0	0	0	2	2
Lopena	1	0	0	1	0	1	1
Lucas	2	0	0	2	1	0	1
Marbach	0	0	0	0	0	1	1
Martinez	0	0	0	0	0	1	1
McNeil	0	0	0	0	0	1	1
Mirando City	0	0	0	0	0	1	1
Mirando Valley	0	0	0	0	0	1	1
North Pettus	1	0	1	0	0	0	0
Rio Grande City	1	15	0	0	1	1	2
Sandia	0	0	0	0	0	1	1
Seeligson	1	0	1	0	1	1	2
Sinton	1	480	0	0	0	1	1
West Tuleta	10	1,393	1	0	4	6	10
Von Ormy	1	4	0	0	0	6	6
North Kohler	0	0	0	0	0	1	1
Miscellaneous	33	40	30	2	17	75	92
Total Feb.	95	11,332	47	5	38	138	176
Total Jan.	97	9,721	46	13	38	82	120
Difference	2	1,611	1	8	0	56	56

Gulf Coast Fields

TEXAS

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rigs	Dlg.	Ttl.
Arriola	1	625	0	0	0	0	0
Barbers Hill	3	755	0	0	2	7	9
Batson	0	0	0	0	0	1	1
Big Creek	1	840	0	0	1	0	1
Blue Ridge	1	30	0	0	0	1	1
Boling	0	0	0	0	1	3	4
Buckeye	0	0	0	0	0	1	1
Clay Creek	1	0	1	0	0	1	1
Cleveland	1	120	0	0	1	1	2
Coletto Creek	0	0	0	0	0	1	1
Conroe	3	384	0	0	2	6	8
Damon Mound	0	0	0	0	0	2	2
Danbury	0	0	0	0	0	2	2
Dickinson	0	0	0	0	1	4	5
Esperson	1	0	0	1	0	2	2
Fannett	1	744	0	0	0	1	1
Goose Creek	1	0	1	0	0	1	1
Greta	1	125	0	0	0	2	2
Hankamer	0	0	0	0	0	1	1
Hastings	0	0	0	0	0	3	3
High Island	1	120	0	0	3	2	5
Hull	4	600	0	0	1	1	2
Humble	1	40	0	0	0	2	2
Katy	1	0	0	1	0	0	0
Kittrell	2	360	1	0	1	1	2

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Livingston ..	3	310	0	0	0	1	1
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Markham ..	1	0	1	0	0	0	0
Mykawa	2	936	0	1	0	1	1
Orchard	0	0	0	0	1	2	3
Pierce Junction ..	1	250	0	0	1	3	4
Port Neches.	2	0	2	0	1	1	2
Raccoon Bend	6	3,335	1	0	0	3	3
Refugio	3	2,100	0	1	0	5	5
Saratoga ...	1	40	0	0	0	1	1
Sour Lake ..	1	168	0	0	0	3	3
Spindletop ..	1	320	0	0	0	0	0
Sugarland ..	1	311	0	0	0	0	0
Thompson ..	3	3,448	0	0	0	0	0
Tomball ...	10	3,462	0	3	2	7	9
Tom O'Connor	1	1,000	0	0	0	1	1
Vanderbilt ..	0	0	0	0	2	0	2
Miscellaneous	10	0	10	0	17	35	52
Total Feb..	74	22,661	17	7	42	119	161
Total Jan..	69	36,784	20	5	34	121	155
Difference	5	4,123	3	2	8	2	6

LOUISIANA

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rigs	Drlg.	Ttl.
Bay St. Elaine	0	0	0	0	0	1	1
Black Bayou	1	192	0	0	0	1	1
Bosco	6	3,279	1	0	1	9	10
Calliou Island	1	0	1	0	1	1	2
Cameron Meadows .	0	0	0	0	1	3	4
Darrow	1	1,296	0	0	1	0	1
Dog Lake ..	0	0	0	0	0	1	1
Edgerly	1	0	1	0	0	1	1
Gillis	2	1,392	0	0	4	5	9
Gueydan	0	0	0	0	0	1	1
Hackberry ..	3	180	1	0	2	3	5
Iowa	1	1,338	1	0	1	4	5
Jennings	0	0	0	0	0	3	3
Lake Barre .	0	0	0	0	0	3	3
Lake Washington	0	0	0	0	0	1	1
Leesville ...	2	1,641	0	0	1	4	5
Lockport	1	225	0	0	0	2	2
New Iberia..	0	0	0	0	1	3	4
Port Barre..	1	403	0	0	0	1	1
Roanoke	2	1,001	1	0	0	4	4
Starks	0	0	0	0	0	1	1
Sulphur	0	0	0	0	0	1	1
Sweet Lake.	0	0	0	0	0	1	1
Vinton	0	0	0	0	0	2	2
White Castle	0	0	0	0	0	2	2
Miscellaneous	4	0	4	0	9	14	23
Total Feb..	26	10,947	10	0	22	72	94
Total Jan..	36	12,860	19	0	19	82	101
Difference	10	1,913	9	0	3	10	7

East Texas Border Counties

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Cass	0	0	0	0	1	0	1
Harrison	0	0	0	0	0	2	2
Marion	0	0	0	0	0	2	2
Panola	3	0	3	0	1	3	4
Shelby	0	0	0	0	0	4	4
Total Feb. ...	3	0	3	0	2	11	13
Total Jan. ...	0	0	0	0	2	14	16
Difference ...	3	0	3	0	0	3	3

North Louisiana Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas*	Rigs	Drlg.	Ttl.
Avoyelles	0	0	0	0	1	1	2
Bienville	1	0	1	0	0	1	1
Bossier	2	25	0	1	2	6	8
Caddo	5	230	2	0	5	20	25
Catahoula	0	0	0	0	0	2	2
Claiborne	0	0	0	0	3	1	3
De Soto	2	12	0	1	2	11	13
East Carroll ...	0	0	0	0	0	1	1
Grant	0	0	0	0	1	0	1
LaSalle	2	45	0	0	0	1	1
Natchitoches ..	0	0	0	0	1	3	4
Ouachita	1	0	0	1	1	0	1
Rapides	0	0	0	0	1	1	2
Red River	1	0	1	0	0	1	1
Sabine	5	150	4	0	10	13	23
Tensas	0	0	0	0	0	1	1
Union	1	0	0	1	1	1	2
Webster	0	0	0	0	2	0	2
Total Feb. ...	20	462	8	4	29	64	93
Total Jan. ...	21	455	9	6	36	54	90
Difference ...	1	7	1	2	7	10	3

*Gas production: Bossier, 41,000,000; De Soto, 500,000; Ouachita, 3,000,000; Union, 1,500,000; total, 46,000,000 feet.

Arkansas Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Arkansas	0	0	0	0	0	1	1
Ashley	0	0	0	0	1	0	1
Hempstead ..	0	0	0	0	0	1	1
Lafayette	0	0	0	0	1	3	4
Little River ...	0	0	0	0	0	2	2
Lonoke	0	0	0	0	0	1	1
Miller	4	165	3	0	4	9	13
Nevada	0	0	0	0	1	0	1
Ouachita	1	0	1	0	2	6	8
Poinsett	0	0	0	0	0	1	1
St. Francis	0	0	0	0	0	1	1
Union 10	1,303	5	0	9	19	28	
Woodruff	0	0	0	0	1	1	2
Total Feb. ...15	1,468	9	0	19	45	64	
Total Jan. ...16	805	6	1	15	44	59	
Difference ... 1	663	3	1	4	1	5	

Mississippi Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Amite	0	0	0	0	0	1	1
Bolivar	0	0	0	0	0	1	1
Clarke	0	0	0	0	0	1	1
Harrison	0	0	0	0	0	1	1
Hinds	0	0	0	0	1	0	1
Issequena	0	0	0	0	0	1	1
Jones	1	0	1	0	1	0	1
Lauderdale	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	2	2
Scott	0	0	0	0	0	1	1
Simpson	0	0	0	0	1	0	1
Warren	0	0	0	0	0	1	1
Washington ...	0	0	0	0	0	1	1
Winston	0	0	0	0	0	1	1
Total Feb. ...	1	0	1	0	3	12	15
Total Jan. ...	1	0	1	0	1	12	13
Difference ...	0	0	0	0	2	0	2

Alabama Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Conecuh	1	0	1	0	0	0	0
Covington	0	0	0	0	0	1	1
Houston	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Pike	0	0	0	0	1	0	1
Total Feb. ...	1	0	1	0	1	3	4
Total Jan. ...	0	0	0	0	1	4	5
Difference ...	1	0	1	0	0	1	1

Florida Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Walton	0	0	0	0	1	0	1
Total Feb. ...	0	0	0	0	1	0	1
Total Jan. ...	1	0	1	0	1	0	1
Difference ...	1	0	1	0	0	0	0

Rocky Mountain Area

WYOMING

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Big Horn ..	0	0	0	0	2	6	8
Carbon	0	0	0	0	0	8	8
Converse ...	0	0	0	0	0	6	6
Crook	0	0	0	0	0	7	7
Fremont	0	0	0	0	0	6	6
Lincoln	0	0	0	0	0	4	4
Niobrara ...	0	0	0	0	0	4	4
Park	0	0	0	0	1	4	5
Sweetwater .	0	0	0	0	0	2	2
Sublet	0	0	0	0	0	3	3
Uinta	0	0	0	0	0	6	6
Weston	0	0	0	0	3	5	8
Miscellaneous.	0	0	0	0	0	8	8
Ttl. Feb. .	0	0	0	0	6	69	75
Ttl. Jan. .	3	540	1	0	6	67	73
Difference.	3	540	1	0	0	2	2

MONTANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Big Horn ...	2	0	0	2	0	1	1
Carbon	0	0	0	0	0	2	2
Cascade	0	0	0	0	0	2	2
Fergus	0	0	0	0	0	3	3
Glacier	2	10	1	0	8	11	19
Liberty	0	0	0	0	0	3	3
Toole	0	0	0	0	1	9	10
Miscellaneous.	0	0	0	0	0	7	7
Ttl. Feb. .	4	10	1	2	9	38	47
Ttl. Jan. .	8	224	5	0	8	37	45
Difference.	4	214	4	2	1	1	2

UTAH

	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Total Feb. .	0	0	0	0	1	13	14
Total Jan. .	1	0	0	1	1	13	14
Difference.	1	0	0	1	0	0	0

COLORADO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Adams	0	0	0	0	1	0	1
Archuleta ..	0	0	0	0	0	3	3
Grand	0	0	0	0	0	2	2
Huerfano ...	0	0	0	0	0	2	2
Jackson	0	0	0	0	0	2	2
Larimer	0	0	0	0	0	3	3
Moffat	0	0	0	0	1	1	2
Miscellaneous.	0	0	0	0	0	12	12
Ttl. Feb. .	0	0	0	0	2	25	27
Ttl. Jan. .	2	2,160	1	0	3	28	31
Difference.	2	2,160	1	0	1	3	4

NEW MEXICO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Chaves	1	0	1	0	0	2	2
Eddy	2	0	2	0	0	9	9
Lea	13	22,433	1	1	13	43	56
McKinley ...	1	0	1	0	1	3	4
San Juan ...	0	0	0	0	1	15	16
San Miguel .	1	0	1	0	1	6	7
Santa Fe ...	0	0	0	0	0	3	3
Valencia	0	0	0	0	1	2	3
Miscellaneous.	0	0	0	0	1	7	8
Ttl. Feb.	17	22,433	6	1	18	90	108
Ttl. Jan. .	16	14,331	7	1	16	87	103
Difference.	1	8,102	1	0	2	3	5

Eastern Fields

Summary of Work Completed

	Comp.	Prod.	Dry	Gas
Bradford 104	88	6	6	
Allegany	1	1	6	6
Venango-Clarion	3	4	1	9
Butler-Armstrong	3	9	6	9
Southwest Pennsylvania ..	6	5	1	4
Southeast Ohio	30	284	6	5
West Virginia	54	61	9	37
Total February 201	452	17	46	
Total January 187	488	22	27	
Difference	14	36	5	19

New Work

	Rigs	Drlg.	Ttl.
Bradford	12	56	68
Allegany	0	1	1
Venango-Clarion	6	4	10
Butler-Armstrong	2	3	5
Southwest Pennsylvania	4	12	16
Southeast Ohio	15	34	49
West Virginia	17	66	83
Total February	56	176	232
Total January	50	165	215
Difference	6	11	17

Lima Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Wood	0	0	0	0	0	3	3
Henry	0	0	0	0	0	2	2
Allen	0	0	0	0	0	4	4
Auglaize ...	0	0	0	0	0	4	4
Hardin	0	0	0	0	1	0	1
Van Wert ..	0	0	0	0	0	4	4
Darke	0	0	0	0	0	2	2
Shelby	0	0	0	0	0	1	1
Ottawa	0	0	0	0	0	1	1
Sandusky ..	0	0	0	0	0	2	2
Seneca	3	5	1	1	0	3	3
Marion	0	0	0	0	0	1	1
Wyandot ...	4	0	1	3	1	4	5
Total Feb.	7	5	2	4	2	31	33
Total Jan..	13	75	1	2	5	31	36
Difference.	6	70	1	2	3	0	3

Central Ohio Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Ashland	0	0	0	0	1	1	2
Medina	5	2	3	1	3	7	10
Holmes	0	0	0	0	3	3	6
Cuyahoga ..	0	0	0	0	0	2	2
Lorain	2	0	0	2	2	4	6
Richland ...	1	0	0	1	0	3	3
Wayne	0	0	0	0	0	3	3
Summitt ...	1	0	1	0	1	4	5
Fairfield	1	0	0	1	2	2	4
Knox	3	100	1	1	2	6	8
Coshocton ..	1	56	0	0	1	1	2
Licking	1	70	0	0	2	2	4
Muskingum .	2	30	0	1	0	7	7
Athens	2	0	0	2	8	4	12
Tuscarawas.	1	0	1	0	1	4	5
Stark	5	0	0	5	4	16	20
Belmont	0	0	0	0	1	3	4
Portage	0	0	0	0	0	1	1
Crawford ..	0	0	0	0	0	1	1
Guernsey ...	8	49	1	3	1	13	14
Gallia	0	0	0	0	0	4	4
Scioto	0	0	0	0	0	1	1
Pike	0	0	0	0	0	2	2
Carroll	0	0	0	0	0	1	1
Vinton	2	0	2	0	0	1	1
Lawrence ..	0	0	0	0	0	2	2
Meigs	7	0	3	4	3	14	17
Perry	2	10	0	1	0	3	3
Delaware ..	0	0	0	0	0	1	1
Total Feb..	44	317	12	22	35	116	151
Total Jan.	70	218	18	36	27	112	139
Difference.	26	99	6	14	8	4	12

Illinois Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Clark	0	0	0	0	0	4	4
Crawford	1	0	1	0	0	4	4
Marion	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
St. Clair ...	1	257	0	0	0	0	0
Monroe	1	0	1	0	0	0	0
Jasper	0	0	0	0	0	1	1
Ttl. Feb. .	2	257	2	0	0	11	11
Ttl. Jan. .	3	4	2	0	0	13	13
Difference.	0	253	0	0	0	2	2

Michigan Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Midland	12	4,740	1	0	12	36	48
Isabella	10	502	1	3	19	30	49
Oceana	0	0	0	0	5	9	14
Gratiot	0	0	0	0	5	2	7
Mecosta	0	0	0	0	7	10	17
Huron	0	0	0	0	1	1	2
St. Clair	0	0	0	0	2	0	2
Clinton	0	0	0	0	1	0	1
Clare	0	0	0	0	3	0	3
Kent	1	0	1	0	1	2	3
Emmett	0	0	0	0	1	1	2
Cass	0	0	0	0	6	1	7
Saniiac	0	0	0	0	2	0	2
Newaygo	0	0	0	0	3	0	3
Saginaw	0	0	0	0	5	2	7
Shiawassee ..	0	0	0	0	1	4	5
Alegan	1	0	1	0	3	0	3
Livingston ..	0	0	0	0	0	4	4
Alpena	0	0	0	0	1	0	1
Oakland	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Alcona	0	0	0	0	2	0	2
Macomb	0	0	0	0	2	1	3
Montcalm	0	0	0	0	2	11	13
Muskegon ...	0	0	0	0	6	7	13
Ogemaw	2	245	0	0	27	12	39
Gladwin	0	0	0	0	0	5	5
Eaton	0	0	0	0	0	1	1
Hillsdale ...	0	0	0	0	2	0	2
Lenawee ...	0	0	0	0	1	0	1
LaPeer	0	0	0	0	3	2	5
Bay	0	0	0	0	1	0	1
Roscommon..	0	0	0	0	1	1	2
Mason	0	0	0	0	0	1	1
Chippewa ...	0	0	0	0	1	0	1
Tuscalo	0	0	0	0	1	0	1
Clinton	0	0	0	0	1	0	1
Arenac	0	0	0	0	0	1	1
Ttl. Feb. .	26	5,487	4	3	126	149	275
Ttl. Jan. .	21	947	3	3	123	129	262
Difference.	5	4,540	4	0	7	20	13

Indiana Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Gibson	3	70	1	1	0	4	4
Knox	9	5	2	6	0	3	3
Daviess	5	0	2	3	0	0	0
Decatur	1	0	0	1	0	2	2
Dubois	2	0	2	0	0	1	1
Lawrence	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Pike	3	5	1	1	0	4	4
Sullivan	4	0	1	3	0	0	0
Adams	1	10	0	0	0	1	1
Hancock	1	0	0	1	0	0	0
Cass	0	0	0	0	0	1	1
DeKalb	0	0	0	0	0	1	1
Jay	2	0	2	0	0	2	2
Martin	0	0	0	0	0	1	1
Perry	1	0	1	0	0	4	4
Posey	2	20	1	0	0	1	1
Spencer	1	0	0	1	0	3	3
Ttl. Feb. .	35	110	13	17	0	30	30
Ttl. Jan. .	3	0	1	2	1	50	51
Difference.	32	110	12	15	1	20	21

Kentucky Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Drlg.	Ttl.
Henderson ..	1	5	0	0	0	0	0
Ohio	8	265	2	1	0	0	0
Hancock	0	0	0	0	2	12	14
McLean	0	0	0	0	0	1	1
Allen	0	0	0	0	0	3	3
Ttl. Feb. .	9	270	2	1	2	16	18
Ttl. Jan. .	23	443	8	2	3	22	25
Difference.	14	173	6	1	1	6	7

High Naphthene Content in Rumanian Gasoline

(Continued from Page 53)

fined with 93 per cent sulphuric acid, neutralized with caustic soda and rerun with fire and steam at a maximum still temperature of 350° F. The following results were obtained as shown in table 19.

TABLE 19

Field—	Moreni	Gura Ocnitzei
Acid, lb./bbl.	3	3
Gravity, °A.P.I.	65.4	62.7
Color, °Saybolt	30+	30
Color after exposure	27	27
Doctor test	Neg.	Neg.
Gum, mg./100 c.c. (C.D.)	28	11
Sulphur, per cent	0.02	0.03
Octane No., motor method	70	70

100 c.c. A.S.T.M. Distillation

	°F.	°F.
Initial B.P.	100	100
Per cent distilled over:		
5	124	129
10	138	144
20	158	170
50	217	235
90	298	330
Endpoint	346	370
Per cent distilled over	96.0	96.0
Bottoms	1.0	1.0
Loss	3.0	3.0

The above results show that raw cracked gasolines from Rumanian topped crude may be readily acid treated to produce a finished gasoline of marketable properties.

The results of processing Moreni and Gura Ocnitzei crude oils are summarized in Table 20.

TABLE 20—YIELDS OF PRODUCTS PER CENT OF CRUDE OIL

Field—	Per cent— Moreni	Gura Ocnitzei
Straightrun gasoline	39.3	28.7
Cracked gasoline	22.4	38.9
Total gasoline	61.7	67.6
White spirits	5.7	7.3
Cracked residuum	22.7	16.4
Gas and loss	9.9	8.7

Commercial cracking of oils in Rumania is increasing. There are now nine Dubbs cracking units in operation, with two new units under construction. Some are operating to produce gasoline and fuel oil, while others are producing gasoline and coke. The units operate continuously for over 30 days, running to gasoline and fuel oil or coke.

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10. LASTS LONGER—increased service far in excess of slight additional cost.

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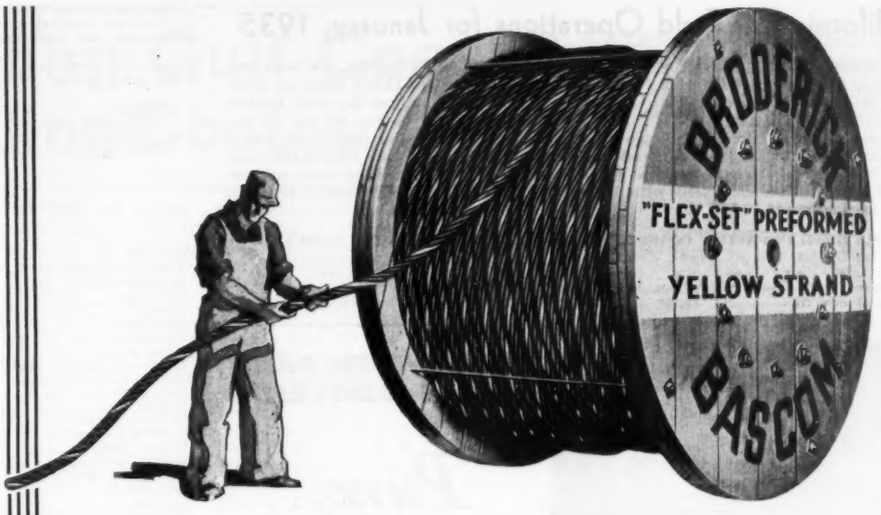

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R-7

"Flex-Set" Preformed Yellow Strand Rotary Drilling Lines

California Oil Field Operations for January, 1935

According to figures collected by the American Petroleum Institute, the total production of crude oil in California for January amounted to 15,511,311 bbls., an average of 500,365 bbls. per day. This is an increase of 21,565 bbls. per day over December production.

Total stocks of crude and all products in Pacific Coast territory increased during the month 376,749 bbls. The total stocks at the end of the month were 126,595,066 bbls.

Fifty-four wells were completed during the month with an initial daily production of 62,283 bbls., compared with 50 wells completed during December with an initial production of 52,570 bbls.

STOCKS HELD IN PACIFIC COAST TERRITORY BY CALIFORNIA OIL COMPANIES

	Jan. 31, 1935	Dec. 31, 1934	Jan. stock changes	Jan. 31, 1934
1. Non-gasoline-bearing crude, residuum, gas and Diesel oils	66,272,552	67,182,258	—909,706	90,140,028
2. Gasoline-bearing crude	37,820,438	37,549,934	+270,504	35,644,592
3. Unblended natural gasoline	2,700,357	2,446,840	+253,517	2,385,416
4. Gasoline (not including distributing and service stations)	10,778,952	10,343,477	+435,475	13,536,302
5. Naphtha distillates	1,140,565	*928,053	+212,512	*1,417,035
6. All other stocks	7,882,202	†7,767,755	+114,447	†6,776,956
7 Total	126,595,066	126,218,317	+376,749	149,901,329
*Estimated amount of unfinished gasoline contained in Item No. 5	884,779	753,082	.....	1,041,235
†Coke included in Item No. 6	562,643	568,915	.....	626,599

CRUDE PETROLEUM PRODUCTION

(Figures of production and stocks are in barrels of 42 gallons)

	Total production, January	Daily average Jan., 1935	Daily average Dec., 1934	Daily average Jan., 1934
Group No. 1:				
Belridge—North	176,357	5,689	5,276	6,940
Belridge—South	74,496	2,403	2,467	1,461
Coalinga	572,592	18,474	17,907	15,862
Edison	31,044	1,001	1,485	.....
Elk Hills	258,948	8,353	8,027	11,383
Fruitvale	122,753	3,960	3,526	4,011
Kern River	332,189	10,716	10,450	8,748
Kettleman Middle Dome	15,514	500	505	433
Kettleman North Dome	2,088,083	67,358	58,969	51,095
Lost Hills	146,480	4,693	4,540	2,786
McKittrick	97,558	3,147	3,142	2,614
Midway-Sunset	1,672,065	53,938	51,271	52,566
Mountain View	542,735	17,508	11,176	2,616
Mount Poso	386,164	12,457	11,364	8,086
Round Mountain	145,635	4,698	4,662	5,021
Wheeler Ridge	12,599	406	409	441
Group No. 2:				
Capitan	23,735	766	731	327
Elwood	275,467	8,886	9,660	12,503
Rincon	50,650	1,634	1,398	1,485
San Miguelito	20,451	660	626	833
Santa Barbara	138,254	4,460	4,224	571
Santa Maria	143,411	4,626	4,743	4,987
Summerland	1,118	36	41	67
Ventura Avenue	754,423	24,336	23,350	32,131
Ventura-Newhall	124,786	4,025	4,127	3,209
Watsonville	1,860	60	60	60
Group No. 3:				
Brea-Olinda	309,476	9,983	10,503	8,853
Coyote—East	85,154	2,747	2,570	1,667
Coyote—West	290,793	9,380	8,810	8,270
Dominguez	595,974	19,225	18,445	16,237
Huntington Beach	1,211,658	39,086	40,722	38,551
Inglewood	290,908	9,384	9,671	9,092
Lawndale	3,621	117	126	167
Long Beach	1,930,131	62,262	61,340	58,266
Los Angeles-Salt Lake	24,647	795	802	738
Montebello	180,916	5,836	6,175	4,996
Playa Del Rey	299,740	9,669	8,553	9,359
Potrero	13,731	443	443	394
Richfield	243,288	7,848	8,184	7,423
Rosecrans	87,300	2,816	2,885	2,790
Santa Fe Springs	1,200,355	38,721	38,660	41,385
Seal Beach	291,354	9,399	8,700	10,763
Torrance	210,872	6,802	6,976	6,588
Whittier	32,936	1,062	1,089	1,111
Total January	15,511,311	500,365	478,800	456,886
Total December	14,842,804	478,800		
Increase	668,507	21,565		

OIL FIELD DEVELOPMENT

	New rigs up	Active drilling	Producers completed	Daily initial output	Active producing	Abandoned wells: Drillers	Abandoned wells: Producers
Group No. 1:							
Belridge—North	..	4	...	.....	24	..	..
Belridge—South	..	1	...	.....	130	..	..
Coalinga	..	2	...	.....	972	..	..
Edison	6	12	3	1,147	15	..	..
Elk Hills	..	1	...	.....	153	..	..
Fruitvale	1	3	1	125	68	..	..
Kern River	..	2	...	.....	1,437	..	..
Kettleman Middle Dome	..	1	...	.....	2	..	..
Kettleman North Dome	1	25	2	21,859	32	2	..
Lost Hills	1	2	...	.....	314	..	..
McKittrick	..	2	...	.....	185	..	..
Midway-Sunset	3	5	3	1,396	2,502	2	5
Mountain View	7	16	7	13,786	58	..	..
Mount Poso	6	7	5	3,072	158	..	1
Round Mountain	..	2	...	.....	50	..	..
Wheeler Ridge	..	...	...	.....	34	..	..
Group No. 2:							
Capitan	2	1	...	.....	12	..	..
Elwood	..	4	...	.....	40	..	..
Rincon	..	...	...	.....	29	..	..
San Miguelito	..	...	...	.....	4	..	..
Santa Barbara	1	6	8	6,819	60	1	..
Santa Maria	..	2	...	.....	186	..	..
Summerland	..	...	...	.....	17	..	..
Ventura Avenue	2	11	2	1,464	185	..	..
Ventura-Newhall	..	5	1	162	466	..	..
Watsonville	..	...	...	.....	7	..	..
Group No. 3:							
Brea-Olinda	..	1	...	.....	344	..	..
Coyote—East	..	1	...	.....	74	..	..
Coyote—West	2	1	1	988	25	..	1
Dominguez	1	6	...	.....	74	..	..
Huntington Beach	1	4	2	4,161	477	3	..
Inglewood	3	2	...	.....	204	1	..
Lawndale	..	...	...	.....	6	..	..
Long Beach	7	27	15	5,344	1,108	3	2
Los Angeles-Salt Lake	..	...	...	.....	126	..	..
Montebello	..	2	...	.....	163	..	..
Newport	..	1	...	.....	...	..	..
Playa Del Rey	1	7	1	1,415	159	..	..
Potrero	..	...	...	.....	13	..	..
Richfield	..	...	...	.....	244	..	..
Rosecrans	..	1	...	.....	69	1	..
Santa Fe Springs	4	2	2	604	496	..	1
Seal Beach	..	...	...	.....	117	..	2
Torrance	..	...	...	.....	476	1	1
Whittier	..	...	...	.....	160	..	..
Miscellaneous drilling	..	33	...	.....	.....	14	..
Group No. 4:							
Buttonwillow gas field	..	...	...	.....	.....	..	..
Dudley Ridge gas field	..	1	...	.....	1	..	..
Goleta gas field	..	1	1	Gas	.....	..	..
Total January	49	205	54	62,283	11,524	28	13
Total December	66	214	50	52,570	11,399	33	41
Decrease	17	9	*4	*9,713	*125	5	28
Average for year 1934	53	196	38	47,553	11,053	21	17
Average for year 1933	30	124	21	22,842	9,199	14	18
Average for year 1932	13	108	15	13,069	8,928	16	14

*Increase.

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By

V. A. KALICHEVSKY and B. A. STAGNER

Published June 16, 1933; size, 6 1-4 x 9 1-4; 451 pages

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Among Gulf Coast Drilling Contractors

Carlisle & Williams, who are drilling in the wilds of Bandera County, Texas, among the limestone knobs, for the Plateau Oil Co., were reported below 1,900 feet at the close of the week. Visitors, who would normally be discouraged from paying much attention to the wildcat, flock to the location to marvel at the wild turkeys, deer and goats which abound in the area. One flock of 15 turkeys, pleasantly aware that every hill in the countryside contains a ranch house, and that every rancher is a game warden, or deputy game warden, takes malicious delight in taunting the drilling crew by drinking daily at a spring within 100 yards of the rig.

R. M. Sturm has staked a location for a wildcat on a 197-acre tract in the R. B. Love estate in San Jacinto County, near the town of Cold Spring. The test will go to 6,500 feet, and the drilling contractor will be announced next week.

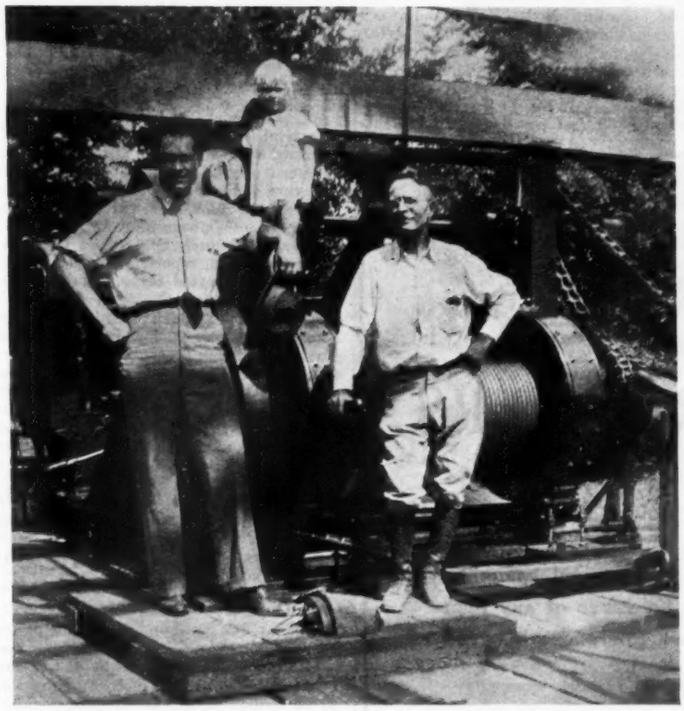
Glenn H. McCarthy, Inc., is clearing location on the McCarthy-Gillette 90-acre tract (G. W. Wagers Survey), to drill a well for McCarthy and others. It will be an offset to Nos. 22 and 23 of the Gulf Coast Drilling & Production Co.

J. H. Kirby, Jr., and Jim Chew have formed the C. & K. Drilling Co., and are drilling their first well on a 4,000-acre block acquired from the Gulf Oil Co. of Louisiana at DeRidder, La. The company is operating one rig at present, but plans to have two in the field in the near future.

George Echols has derrick up to drill No. 1 Wiles ranch, Jim Hogg County, for the Sun Oil Co. On No. 12 Cartwright for the Houston Oil Co. at Conroe, he is drilling at 4,230 feet. On No. 2 Thompson for the Humble Oil & Refining Co., Thompson's ranch, Bee County, he is drilling below 4,500 feet. On No. 2 Colby for the Windsor Oil Co. at Manvel, he is drilling below 1,800 feet. On a well for E. A. Stone, being drilled jointly with Ralph Townley, he is drilling below 4,000 feet.

Bud Coyle, one of Houston's veteran drilling contractors, has three rigs running for the Fohs Oil Co. in the Old Town Bay, or Gillis Field, near Lake Charles, La. These are carried as Nos. 2, 3 and 4 Castle. He is also rigging up to drill No. 11 Arriola fee for the Republic Production Co. in the Arriola Field, Jefferson County.

Steen Drilling Co. is drilling below 4,500 feet for the Steinberger Petroleum Co. in the Port Lavaca Field, Calhoun County. This well is being watched with much interest.



Fresh proof that the door of opportunity is still fitted with a latchstring, is to be found in the erection of a derrick on a 10-acre location in the Hankamer Field, Liberty County, by the Eljean Oil Co. Location, within a stone's throw of the recently completed Cretaceous Oil Co.'s flush producer, climaxes the attempt of one of the Gulf Coast's youngest drilling contractors to reach the "latchstring." Elbert Jeanes broke into the oil business in 1930, and by dint of resourcefulness, managed to drill one wildcat in Lee County, Texas, one in Titus County, one in Wharton County, and four in Zapata County. All were dusters. In the latter part of 1933, he acquired a medium duty gasoline rig, and drilled two dry holes in McMullen County. Undaunted by his dusty record, by the frequent failure of the "chili" crop, and by well-meaning friends with discouraging advice, he signed up to drill a well for the Cretaceous Oil Co. in the Hankamer Field, Liberty County. It was completed as a 350-bbl. well, and although Jeanes had no more cash than when he started the well, he did have some acreage. Changing from tool pusher's clothes to garb more befitting a company organizer, he lately presided at the birth of the Eljean Oil Co. — now erecting derrick at Hankamer to drill the company's first well. Jeanes is president of the company, for whom, as drilling contractor, he will drill the well, to be carried as Eljean Oil Co.'s No. 1 Ezzell. In the picture above with Jeanes (left), are his daughter, Jane Carol Jeanes, and Jack Hatton of the Cretaceous Oil Co.

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Second Producer Is Likely in the Hastings Field; Deeper Pay on South Flank, Batson Dome

By F. L. SINGLETON
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., Mar. 11.—Stanolind Oil & Gas Co.'s No. 1 Miller, located approximately 2,000 feet east of the discovery well in the Hastings Field, northeastern Brazoria County, practically assured the field of its second producer, as well as an important extension, when it cored 22 feet of saturated oil sand from 5,971-5,993 feet and is now bottomed in shale at 6,009 feet, with 7-inch casing cemented at 5,977 feet. It is expected to be tested some time during the week.

The test is bottomed in the same formation at a depth of 6 feet deeper than the discovery well, which indicates that there is very little dip in the formation between it and the discovery, consequently if the test makes a producer, production is expected to be found much farther east. With an elevation of 49 feet it topped the Discorbis at 5,130-60 feet; Heterostegina at 5,490-5,520 feet and the Marginulina at 5,580-90 feet. While this test offered encouragement to the east side of the discovery, attention in the field is now centered on the outcome of the company's other two operations which are drilling north and south. Its No. 1 Steve Paul, approximately 2,100 feet south of the discovery, is drilling in shale below 4,618 feet. About the same distance north in the A.C.H.&B. Survey No. 1, Wooster is drilling in shale below 3,359 feet.

The discovery well, No. 1 J. W. Surface, recompleted last week due to faulty cementing jobs on casing and settings, flowed 159 bbls. the last 24 hours ending March 8, through a three-eighths-inch choke, with tubing pressure 1,825 pounds and casing pressure 2,000 pounds.

Hardin County

In the western part of Hardin County on the south flank of the Batson Dome, John Deering and others' No. 1 Cruse in the Willis Donoho Survey, opened up the deepest pay found on the dome and established somewhat of a production record for wells completed in that area, when it flowed 5,500 bbls. of pipe line oil through various chokes in 24 hours ending at 7 a.m. March 8. The chokes used on the test ranged from a one-half inch choke to open tubing. On a five-eighths-inch choke the tubing pressure averaged 600 pounds and on open tubing it averaged 250 pounds. Production is from the Oligocene sand bottomed at 5,567 feet, and topped at 5,555 feet. Seven-inch casing was cemented at 5,520 feet.

This is the third producer to be completed in the flank sand, and it is approximately 667 feet deeper than the same operators' No. 1 Hooks and No. 1 Jordan, which were completed last year. The completion of No. 1 Cruse is of most importance and is leading to quite a drilling program for this part of the field. The operators of No. 1 Cruse are drilling below 1,300 feet on their No. 2 Cruse and will make location for No. 1 Bullock this week.

Galveston Field

In the Dickinson Field, Galveston County, a production test is scheduled at Humble Oil & Refining Co.'s No. 1 Jones, which cored broken sand and shale showing oil from 7,990-8,034 feet, and is now standing at a total depth of 8,037 feet, with 7-inch casing cemented at 8,010 feet. It is located approximately 4,000 feet northeast of the company's No. 1-B Maco Stewart, a producer, in the J. O. Sherman Survey. Two drill stem tests made at the company's No. 1 Schaper and No. 1 Danielson, showed nothing of importance and both are drilling ahead. The Schaper test, about 4,000 feet southwest of the producer, was tested with the tool open 43 minutes from 8,147-8,212 feet and the operators recovered 10 stands of mud. It is coring ahead below 8,216 feet in shale. No. 1 Danielson, in the southeast part of the field, about one-half mile from the company's No. 1 Maco Setwart in the John Sellers Survey, is coring in hard sand below 8,696 feet, after it showed 400 pounds of pressure through a one-quarter-inch choke, on an 18-minute drill stem test from 8,457-8,606 feet. The operators recovered 1,500 feet of mud and oil on the test.

Harris County

Frazier and others' No. 1 Herman Hospital estate, in the William Hardin Survey, southeast of the town of Addicks, western part of Harris County, assumed a rather doubtful outlook when it reached a depth of 7,248 feet without showing anything of importance. At this depth it is approximately 243 feet in the Cockfield formation, reported topped at 7,005 feet. It is reported to be running somewhat higher than Cockburn Oil Corp.'s No. 1 Mancuso which was drilled in the same area and abandoned at 6,295 feet. In the Lynchburg area, east of Houston, considerable attention was attracted to T.S.&F. Oil Co.'s No. 1 J. B. Hine in the Arthur McCormick Survey, when the operators reported an oil sand topped at 3,508 feet and cemented 7-inch casing at 3,503 feet. The hole is bottomed at a reported depth of 3,530 feet. As the hole was lubricated with oil at approximately 3,475 feet to free the drill stem which was stuck, while the test was shut down for repairs, it is hard to tell just what the core consisted of.

Brazoria County

One of the most interesting wildcats to be announced for the Gulf Coast for some time has been made by the Texas Co. for its No. 1 Freeport Sulphur Co. to be drilled at Bryan Mound, 3 miles southwest of Freeport in southwestern Brazoria County. The company is building foundations for the derrick and moving in material for the test located 2,764 feet north, 1 degree, 40 feet west, and 1,184 feet south, 88 degrees, 20 feet west of the northwest corner of the S. F. Austin Survey, Abstract 35, being in Conception Areola Survey, Tract No. 1, which comprises 1,561 acres.

A total of 15 tests have been drilled on this dome since 1901, but to date no commercial production has been developed. The best showing encountered in any test was drilled by J. M. Guffey Petroleum Co., which was completed for a 6,000,000-foot gas well. Production, however, did not hold up and it was soon abandoned. The dome at the present time is being developed for commercial sulphur mining by the Freeport Sulphur Co. The above test will be of much interest as it is scheduled to go to 8,500 feet.

The northern limit of the Manvel Field, Brazoria County, was extended another 500 feet north when Bowles & Borsodi's No. 3 Norvell Investment Co. in Block 46, H.&T.C. Survey, was completed for an initial production of 578 bbls. per day, through a one-quarter-inch choke with tubing pressure 675 pounds, and casing pressure 700 pounds. It topped the sand at 5,618 feet and is bottomed at 5,653 feet. Seven-inch casing was cemented at 5,626 feet. This is the second producer to be completed in the deep pay for this part of the field, which was recently proven productive by the same operators at their No. 1 Novell Investment Co. As there is very little difference in the depth of the two wells. It is expected that production in this part of the field will be extended much farther north. East of the operators' first test, Texas Co.'s No. 1 C. P. Dawson, in Lot No. 59, is bottomed in the same pay at a depth of 5,645 feet, and is to be tested during the week. Seven-inch casing was cemented at 5,645 feet. In the south part of the field, Windsor Oil Co. has made location for No. 2 Colby, 660 feet southwest of its No. 1, a producer in the T. Spraggins Survey.

Chambers County

Humble Oil & Refining Co.'s No. 1 Middleton, in the Anahuac area, northern Chambers County, has been killed and is preparing to core deeper. It was tested last week and made 6 bbls. per hour, but due to the high gas-oil ratio which registered 16,400 feet of gas per barrel of oil, the well was killed and the operators pulled screen and liner preparatory to coring deeper. It is bottomed at 7,052 feet, the last 2 feet being cored before the test was made. After the operators had pulled the screen and liner another drill stem test was made from 7,026-52 feet and the well tested only dry gas. Southeast approximately 6 miles in Section 128, H.&T.C. Survey, Sun Oil Co.'s No. 1 Hamilton cored sand from 8,854-59 feet with a slight odor of oil and gas, and is coring ahead in sandy shale with a trace of oil and a show of gas.

Wharton County

In the extreme southwestern corner of Wharton County, John Deering and others' No. 1 C.T.&D. Kountze, in Section 1, S.A.&M.G. Survey, cored sandy shale with a slight brackish taste from 5,571-81 feet, and is now coring ahead. The Marginulina was reported topped at 5,449 feet. In the central part of the county, on a block of 12,000 acres, the Texas Co.'s No. 1 Pierce estate is drilling in shale and lime below 2,992 feet. In the Hilje area, south of the town of Hilje, Sundt and Williams have secured from H. C. Cockburn approximately 3,500 acres formerly held by Texas Gulf Producing Co. and will sell spreads around a proposed test.

Jefferson County

On the Nome Prospect, northwestern Jefferson County, Sun Oil Co. is preparing to test again its No. 1 Hugh Long in the John Blair Survey. It was originally drilled to 9,045 feet but was plugged back and sidetracked from 8,647-65 feet and is setting 5-inch screen preparatory to testing at its new total depth of 8,846 feet.

Liberty County

In Liberty County, H. R. Cullen has

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taken over A. L. Maxwell and others' No. 1 Hincliff, a wildcat test 2 miles northeast of Cleveland in the H.&T.C. Survey, and will have charge of drilling operations. The deal was made for a cash consideration and a large amount in oil, to be paid from one-half of the first oil produced from the 160-acre drill site. The well and all the acreage, except a few small tracts around the block, was assigned to Mr. Cullen.

SOUTH LOUISIANA

Oswego Oil Co.'s No. 1 Mouton, in the extreme southeastern part of the Bosco Field, Acadia and St. Landry Parishes, Louisiana was completed at a total depth of 8,607 feet for an initial production of 24 bbls. per hour through a fifteen-one-hundred-sixty-fourths inch choke, with tubing pressure 1,350 pounds and casing pressure 490 pounds. Seven-inch casing was cemented at 8,507 feet. This is the first producer to be completed by the company in this field.

Another 1,000-foot extension has apparently been made at Superior Oil Producing Co.'s No. 1 Coralie Domingua. It is bottomed at 8,740 feet, with 7-inch casing cemented at 8,727 feet. It extends the field south and is located in Section 34-8s-3e.

In the Gillis Field, Calcasieu Parish, Louisiana, attention is centered on two tests, which have missed the regular horizon found at around 6,700 feet and are drilling for the deep pay found in Fohs Oil Co.'s No. 1 O. H. Castle, which was completed for a producer below 7,000 feet. Union Sulphur Co.'s No. 1 O. H. Castle, a north offset to Fohs Oil Co.'s producer, is coring in shale below 6,955 feet and the outcome of this test should be known by the first of the week. The same company's No. 1 Buhler, south of production in Section 11-9s-8w, is coring in sandy shale below 6,968 feet. The sixth producer for the field is due the first part of the week when Texas Co. completes its No. 1 Nickerson. It topped the oil sand at 6,709 feet and is bottomed at 6,721 feet, with 7-inch casing cemented at 6,709 feet. Seven other tests are active in the field, and there are six other locations to be drilled at an early date, which makes this field, one of the most active in coastal Louisiana.

Cameron Parish

In Cameron Parish, Pure Oil Co. is reported to have leased the Glassell & O'Brien fee in Township 13s, Range 3w, for a consideration of $20,000 for a 10-year paid up lease on approximately 10,000 acres. Stanolind Oil & Gas Co. has leased approximately 2,500 acres of the Live Oak Plantation Co. land in the western part of Township 13s, Range 3e, about 5 miles southwest of the town of Abbeville. The block has been worked with torsion balance and seismograph instruments and it is reported that the company will drill a test within the near future. In St. Mary Parish, Sun Oil Co. is reported to have taken 12,000 acres centering around Section 16-15s-9e paying 25 cents per acre for a six-month exploration option.

Five miles northeast of Iowa, in Jefferson Davis Parish, the wildcat test of George W. Strake's No. 1 Calcasieu National Bank in Section 12-9s-6w is drilling in shale below 8,097 feet after a 10-minute drill stem test from 8,074-95 feet tested 310 feet of salt water through a one-quarter-inch choke on bottom.

On the Crowley Prospect, Acadia Parish, the deep wildcat test of Humble Oil & Refining Co.'s No. 1 American Rice Mills in Section 27-10s-1e, is coring in sandy shale below 8,604 feet.

In the Roanoke Field, Jefferson Davis Parish, Louisiana, Humble Oil & Refining Co. completed its No. 2 Martin Kratzer for an initial production of 479 bbls. in 22 hours through a five-sixteenths-inch choke with tubing pressure of 2,550 pounds and casing pressure 2,900 pounds. This is the same sand from which the discovery well is producing, and is the second test to be completed in this stratum. It was completed at a total depth of 8,671 feet after sand and shale showing oil was cored from 8,650-67 feet.

RECONDITIONING GULF WELLS

HOUSTON, Tex., Mar. 11.—"Reconditioning of Gulf Coast Wells" will be discussed at the regular meeting of the Houston chapter of the American Petroleum Institute, Division of Production, March 19. M. R. Reddick, superintendent for Gulf Production Co. in the Hankamer Field, will present a paper on that subject. Discussion on drilling mud control started at the last meeting will be resumed, as well as discussion of the methods of standardization of measuring viscosity, weights and other characteristics of drilling mud.

A. S. F. RANKIN KILLED

CALGARY, Alberta, Mar. 9.—A. S. F. Rankin, aged 74, was killed recently in a motor car accident at Vancouver, British Columbia. Mr. Rankin came into prominence in 1920 when, following word of the oil strike at Fort Norman, he traversed over 1,300 miles from McMurray to the new field by dog team to stake an oil claim of 1,280 acres. The expedition involved a round trip of nearly 2,700 miles, in the depth of winter.

Wildcat Operations on Gulf Coast

Week Ending March 9

RACCOON BEND—AUSTIN COUNTY

Humble O. & R. Co.'s No. 7 Bellville, 550 ft. from NW line, 500 ft. from SW line, Wm. Smeathers & White Sur.
10¾-in. csg. 1,140 ft.; drlg. shale 3,829 ft.

Humble O. & R. Co.'s No. 11-X Walton, 952 ft. from NW cor., 389 ft. at R/A. from NE. line, Wm. C. White Sur.
10¾-in. csg. 1,157 ft.; coring sand 4,038 ft.

Humble O. & R. Co.'s No. 7-X Wilson, 3,095 ft. from SW cor., 464 ft. at R/A from SW line, Wm. Harvey Sur.
Drlg. shale 4,130 ft.

DANBURY—BRAZORIA COUNTY

Shell Pet. Corp.'s No. 7 Blakely-Winston, 63 deg. 11 min. E. 5,540 ft. N, 26 deg. 49 min. W, 300 ft. from SW cor. of Blakely-Winston 560-ac. tract, H.T &B. Sur.
T.D. 6,353 ft.; P.B. to 6,000 ft.

Shell Pet. Corp.'s No. 3 Haury, 800 ft. SE of No. 2 in line with No. 2 and No. 1 Blakely-Winston, H.&T.B. Sur. No. 13
T.D. 7,168 ft.; making 564,000 ft. of dry gas daily through ⅞-in. choke.

DAMON MOUND—BRAZORIA COUNTY

Gulf Stream, Inc.'s No. 1 Cave Heirs, 160 ft. from N line and 60 ft. from E line of Lot C, Blk. 50, A. Darst Sur.
D.S. stuck 1,744 ft.

Esco's No. 1-D Wisdom, 25 ft. from S and W lines of Blk. D, Lot 5, A. Darst Sur.
S.D. 1,563 ft.

HASTINGS—BRAZORIA COUNTY

Stanolind O. & G. Co.'s No. 1 Wooten, 466 ft. S of N line, 466 ft. from SE line of 70-ac. tract, A.C.H.&B. Sur. No. 1.
Drlg. shale 3,256 ft.

Stanolind O. & G. Co.'s No. 1 W. J. Miller, 466 ft. out of SW cor. of the Miller 3,939-ac. tract, in A.C.H.&B. Sur. No. 2, 2,000 ft. E of discovery well.
T.D. 6,009 ft.; 7-in. csg. 5,977 ft.

Stanolind O. & G. Co.'s No. 1 Steve Paul, 476 ft. from the E line and 466 ft. from N line of 160-ac. tract, A.C.H.&B. Sur. No. 2, 2,100 ft. S of discovery well.
Drlg. sandy shale 4,618 ft.

MANVEL—BRAZORIA COUNTY

Texas Co.'s No. 2 Gulf Coast Home Co., 347 ft. S, 441 ft. W from NE cor. of Lot 38, H.T.&B. Sur. No. 2-B.
Rigging up.

Bowles & Borsodi's No. 2 Norvell Investment Co., C of Lot 57, H.&T.C. Sur.
Building derrick.

Bowles & Borsodi's No. 3 Norvell Investment Co., Blk. 46, H.&T.C. Sur. No. 23
7-in. csg. 5,626 ft.; T.D. 5,652 ft.; I.P. 573 bbls. per day through 1¼-in. choke; tubing pressure 675 lbs.; csg. pressure 700 lbs.

Gulf Prod. Co.'s No. 1 T. L. Ellis, 330 ft. each way out of S cor. of 80-ac. lease, H. Little Sur.
Drlg. gumbo 1,965 ft.

J. W. Sorrells' No. 1 Swift, Blk. 21, Abst. 318, H. N. Little Sur.
Derrick.

Sterling O. & R. Co.'s No. 1 W. A. Gamble, 300 ft. from E line and center N and S of Lot 78, H. Little Sur.
Drlg. gumbo 1,220 ft.

H. H. Stone's No. 1 H. McCauley, 350 ft. from E line, 300 ft. from S line of Lot 2, A.C.H.&B. Sur.
10-in. csg. 1,000 ft.; drlg. shale 3,800 ft.

Texas Co.'s No. 6 Ewing, 320 ft. N, 47 deg., 59 ft. W and 263 ft. S, 41 deg., 40 ft. W of SE cor. of lease.
Drlg. shale, streaks of sand 4,625 ft.

(Continued on Page 90)

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Fair Gas Well Assured in a Test Located 3 Miles West of Production in Urbana Field, Ark.

By J. R. CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Mar. 11.—A test 3 miles west of production in the Urbana Field, Union County, Arkansas, developed enough gas on drill stem test during the past week to assure its being a fair gasser and was the only development of interest in the entire division. The North Louisiana district reported a fair amount of completions, five oil wells and two gassers with only four dry holes, but aside from one wildcat in the southwestern part of Bienville Parish, which showed some gas from 4 feet of sand, none of the other new explorations was on test. South Arkansas fell far below its usual completion list, reporting only one.

NORTH LOUISIANA

All of the oil and gas wells in this district were from old proven fields. Caddo Parish, the original producing area in this district and one of the oldest oil areas in the Southwest, led with four fair pumping wells. Ark-La-Tex Oil Co.'s No. 2 Simon, Section 15-20-15, is pumping 115 bbls. daily from a total depth of 2,207 feet. Gulf Refining Co.'s No. 7 Chew, Section 33-21-16, is a 20-bbl. pumper from 1,833 feet, and the Shreveport Oil Corp.'s No. 4-C Muslow, Section 4-20-15, is pumping 40 bbls. from 2,160 feet. In Section 16-20-15, Tooke & Reynolds' No. 1 Levey was completed pumping 35 bbls. daily from 2,210 feet. All of these wells are located in a recently uncovered extension of the Pine Island Field. In the southern part of the Converse Field, Sabine Parish, Lawson-Leavell & Bryant's No. 3 Bank of Pleasant Hill, Section 29-9-13, is flowing 20 bbls. daily from the chalk rock at 1,607 feet. The two gassers were from widely separated areas. In the old Naborton Field, DeSoto Parish, Bailey Gaunce's No. 2 B. F. Jenkins, Section 35-13-12, was deepened from 1,400 feet where it was temporarily abandoned as dry more than a year ago, and was completed with an estimated flow of 5,000,000 feet of gas from 3,632 feet. Six-inch casing was set in the hole at 3,628 feet. This is the second test for this operator in this field, deeper than the original oil production, the first well completed about one year ago, gauged around 13,000,000 feet of gas with a small spray of salt water and was abandoned after sanding up. In the Union Parish area of the Monroe Field, Carbons Consolidated's No. 8 fee, Section 25-22-3e, gauged an open flow of 1,500,000 feet of gas with 925 pounds rock pressure from 2,170 feet.

The four dry holes were all in wildcat territory and were abandoned at comparatively shallow depths. A gasoline rig test east of the town of Benton in Bossier Parish, Clyde French's No. 1 Hall, Section 28-20-13, was abandoned as dry at 1,200 feet. Another Bossier Parish test which has been shut down for several months, Howard & Byrd's No. 1 Sam Gold, Section 36-20-13, was abandoned at 1,126 feet. In Catahoula Parish, T. R. Hincey's No. 1 Louisiana Central Lumber Co., Section 32-9-6e, has been shut down at 1,541 feet since November of last year and was abandoned at that depth. An old well being deepened in DeSoto Parish, C. T. Ruffin's No. 1 J. M. Nabors, Section 32-13-11, failed to hit the sand and is standing shut down, waiting orders at 2,685 feet.

Four new locations were staked in the North Louisiana district, two of which were more than of passing importance. North and east of the town of Doyline in the western part of Webster Parish, Virgil Likens has staked location on his No. 1 E. L. Stewart in Section 23-18-10. The test is surrounded by a block of 5,000 acres and the contract depth is for 3,000 feet. Operations will begin on this test immediately. In the northwestern part of DeSoto Parish, near the Caddo Parish line, E. B. Bird and others have derrick up on No. 1 A. D. Johns in Section 20-14-6. A block of 4,700 acres has been assembled surrounding the test, and reports are that the hole will be carried to the Woodbine horizon. The acreage was assembled by A. V. Lynch of Little Rock, Ark. Aside from the Laurel Petroleum Co.'s No. 1 Long Bell Lumber Co., Section 14-8-14, Sabine Parish, the other new operation in this district is in proven territory.

North Louisiana wildcat operations on interesting wells follow: Avoyelles Parish—Southern Star Petroleum Co.'s No. 1 O. G. Royette, Section 28-3-5e, temporarily shut down at 3,421 feet. Bienville Parish—Saline Drilling Co.'s No. 1 Pardee, Section 27-14-6, reports a show of gas from 4 feet of sand at 2,874 feet with the bottom of the hole at 2,960 feet. DeSoto Parish — Century Oil & Drilling Co.'s No. 1 J. M. Morton, Section 27-11-14, tested an estimated 5,000,000 feet of gas with a spray of salt water from 2,825 feet, and shut down awaiting orders; G. H. Collins' No. 1 J. H. Riggs, Section 21-14-13, has set 10-inch surface casing at 40 feet; Hester and others' No. 1-A T. R. Alston, Section 11-11-16, has resumed operations, drilling at 120 feet. Rapides Parish—C. D. Loe, trustees' No. 1 Baird estate, Section 40-5n-1w, is fishing for 4,000 feet of drill stem with the hole bottomed at 4,290 feet; Williams, Carroll & Day's No. 1 Armstrong & Murphy, Section 24-5n-1w, is moving in rig. Red River Parish—J. S. Tuffree's No. 1 T. A. Wilkinson, Section 11-12-11, the only active rig in this parish, is drilling at 1,300 feet. Sabine Parish—A deep test on the flank of the Converse Field, Lawson-Leavell & Bryant's No. 1 Whiting Corp., Section 5-9-13, developed a show of gas on drill stem test, but also had 120 feet of salt water from 3,100 feet and the test is temporarily shut down. Dave McConnell's No. 1 Whitney Corp., Section 3-9-13, is bailing to test at 1,956 feet in the Converse area.

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

AVOYELLES PARISH

Southern Star Pet. Co.'s No. 1 O. G. Boyette, Sec. 28-3-5e.
S.D. 3,421 ft.

BIENVILLE PARISH

Saline Drlg. Co.'s No. 1 Pardee, Sec. 27-14-6.
Reaming to bottom 2,960 ft.

BOSSIER PARISH

Clyde French's No. 1 Hall, Sec. 28-20-13, 1,155 ft. N, 495 ft. E of center.
Dry and abd. 1,200 ft.

Howard & Baird's No. 1 Gold, 150 ft. S and E. NW cor. Sec. 36-20-13.
Dry and abd. 1,126 ft.

W. A. Kirkland's No. 1 Jarrett & McKeller, 330 ft. N and W, S cor. NW NW Sec. 3-21-13.
Drlg. 515 ft.

Leonard Co.'s No. 1 Pearson, 250 ft. S and E, of C Sec. 22-21-14.
S.D. for fuel 2,408 ft.

Scott & Howard's No. 1 Sherrill, Sec. 13-19-12.
Partly rigged up and S.D.

R. L. Skidmore et al's No. 1 Davis, Sec. 12-18-13.
S.D. 1,150 ft.

CADDO PARISH

Ark.-La. Gas Co.'s No. 2 Rodessa O. & Devel Co., Sec. 23-23-16.
Drlg. shale 4,500 ft.

J. Ed Bailey, tr.'s No. 1 Hartzo, NW cor. NE NW Sec. 28-22-16.
Drlg. 500 ft.

W. T. Bell et al's No. 1 Bostick, 1,320 ft. E. 660 ft. N. SW cor. Sec. 12-22-16.
Fishing for bailer 2,754 ft.

Cal.-La. Devel. Co.'s No. 1 Glassell, NW NE Sec. 11-19-15.
Set 10-in. 40 ft.

Gulf Ref. Co.'s No. 7 Chew, 945 ft. N, 200 ft. E of C Sec. 33-21-16.
Comp.; pumping 20 bbls.; 1,833 ft.

Gulf Ref. Co.'s No. 8 Chew, 100 ft. N, 400 ft. E, C Sec. 33-21-16.
Drlg. 150 ft.

Hillman et al's No. 1 J. S. Noel Est., NE NE Sec. 12-20-16.
Rigged up and S.D.

A. D. King, tr.'s No. 1 Roach, 641 ft. E. 375 ft. N, SW cor. SE Sec. 4-14-16.
S.D. 2,128 ft.

Meyers et al's No. 1 Davidson, 790 ft. W. 200 ft. S, NE cor. SE Sec. 16-20-15.
Set 7-in. csg. 2,180 ft.

Press & Lambert's No. 1 Hughes, Sec. 15-20-15.
W.O.S.R. 2,201 ft.

Recovery Oil Co.'s No. 1 W. L. Sibley, Sec. 15-19-14.
Fishing for D.S. 2,050 ft.

Simplex Oil Co.'s No. 1 W. E. Glassell, 660 ft. N and W, SE cor. Sec. 36-20-13.
Drlg. 2,133 ft.

G. R. Stevens' No. 2 Hart, Sec. 22-21-16.
Derrick.

Texas Co.'s No. 3 School fee, Sec. 16-20-15.
Bailing to test 2,222 ft.

Shreveport Oil Corp.'s No. 4-C Muslow, 1,720 ft. E, 160 ft. N, SW cor. Sec. 4-20-15.
Comp.; pumping 40 bbls.; 2,160 ft.

Texas Trading Co.'s No. 1 A. T. Curry, 660 ft. N and E, SW cor. NW Sec. 28-19-16.
Set 2½-in. 943 ft.; testing 952 ft.

Tooke & Reynolds' No. 1 Levy, 330 ft. N and W, SE cor. NE Sec. 16-20-15.
Comp.; pumping 35 bbls.; 2,210 ft.

Tooke & Reynolds' No. 2 Levy, 300 ft. S and E. NW cor. SE NE Sec. 16-20-15.
W.O.S.R. 2,212 ft.

V. & F. Oil Co.'s No. 2 Ethison, Sec. 16-20-15.
Set 2-in. tubing and packer 2,203 ft.

CATAHOULA PARISH

T. R. Hincy's No. 1 La. Central Lbr. Co., Sec. 32-9-6e.
Dry and abd. 1,541 ft.

Phillipe et al's No. 1 Central Lbr. Co., Sec. 2-9-6e.
Arranging P.B. from 3,016 ft.

CLAIBORNE PARISH

J. C. King's No. 1 Odes Webb, 330 ft. S and E. NW cor. NW NE Sec. 21-21-8.
S.D. 1,100 ft.

E. T. Oakes' No. 1 H. W. Patton Est., 660 ft. S and W, NE cor. Sec. 1-20-5w.
Rigging up.

DESOTO PARISH

Century O. & Drlg. Co.'s No. 1 Morton, 300 ft. N and E SW cor. SE NE Sec. 27-11-14.
S.D.; W.O. 2,825 ft.

G. O. Collins' No. 1 J. H. Riggs, 450 ft. S and W, NE cor. SW Sec. 21-14-13.
Set 10-in. 40 ft.

Dempsey & Manziel's No. 1 Thigpen, 375 ft. S, 330 ft. W, NE cor. SW NE Sec. 33-13-13.
S.D. 1,745 ft.

DeSoto Pet. Co.'s No. 1 B. Y. Wemple, C S½ SE NE SW Sec. 14-12-11.
Drlg. 2,110 ft.

E. L. Foster's No. 1 Youngblood, Sec. 9-11-14.
S.D. 1,830 ft.

Bailey Gaunce's No. 2 B. F. Jenkins, Sec. 35-13-12; O.W.D.D.
Comp.; est. 5,000,000 ft. gas; 3,632 ft.

Hester et al's No. 1-A T. R. Alston, 360 ft. S. 330 ft. W, C Sec. 11-11-16.
Drlg. 120 ft.

Leslie Prod. Co.'s No. 1 Ramsey, 150 ft. N and W of C Sec. 36-11-11.
Set 10-in. 45 ft.

C. T. Ruffin's No. 1 J. M. Nabors, 300 ft. S and E. NW cor. SW Sec. 32-13-11.
S.D. 2,685 ft.

Ben F. Smith's No. 1 Bonds, 200 ft. E. 500 ft. N, SW cor. Sec. 23-12-11.
S.D. 2,749 ft.

National Oils, Inc.'s No. 1 B. Y. Wemple, NW SW Sec. 14-12-11.
S.D. 120 ft.

EAST CARROLL PARISH

Century Oil & Drlg. Co.'s No. 1 Olive Dell, 660 ft. S, 300 ft. W, NE cor. Sec. 56-21-21e.
S.D. 150 ft.

GRANT PARISH

C. & S. Oil Corp.'s No. 1 Swope, Sec. 17-19-1e.
Rigging up

LA SALLE PARISH

F. A. Trichello's No. 1 Urania, Sec. 3-9-1e.
S.D.; junked hole 1,491 feet.

NATCHITOCHES PARISH

Clyde Crichton's No. 1 Friedman Est., 406 ft. N. 428 ft. E, SW cor. Sec. 52-7-6.
S.D. 2,934 ft.

Missouri Drlg. Co.'s No. 1 Brown Lbr. Co., 400 ft. N, 330 ft. W, SE cor. Sec. 5-10-10.
S.D. 1,033 ft.

Roy A. Raines et al's No. 1 Raines est., 330 ft. N and E, SW cor. Sec. 8-9-10.
Fishing for D.S. 3,540 ft.; (corrected).

RAPIDES PARISH

C. D. Loe, trustee's No. 1 Baird Est., SE cor. Sec. 40-5n-1w.
Fishing for D.S. 4,290 ft.

Williams-Carroll & Day's No. 1 Armstrong & Murphy, 286 ft. N, 300 ft. W, SE cor. Sec. 24-5n-1w.
Moving in rig.

RED RIVER PARISH

J. S. Tuffree's No. 1 Wilkinson, 1,320 ft. S and W, NE cor. Sec. 11-12-11.
Drlg. 1,300 ft.

SABINE PARISH

H. J. Brothers et al's No. 1 Edwards, 300 ft. S and W, NE cor. SW NW Sec. 29-9-13.
Pumped off: S.D.; W.O. 1,887 ft.

(Continued on Page 92)

ARKANSAS

This district reported only one completion, a dry hole, and the area as a whole developed nothing of interest, with the exception of practically condemning the new discovery near Camden, Ouachita County, as a field of any potential value or bounds. The duster was George L. Pace's No. 1 Union Saw Mill Co., Section 24-18-12, dry in red beds at 3,614 feet. The only bright spot in the Arkansas oil news was Joe Modisette and others' No. 1 L. Hill, Section 6-18-13, which developed 8,000,000 feet of gas on drill stem test from 2,554-63 feet. The test is 3 miles west of the Urbana Field, producing a low grade oil from the 3,360-foot level.

In the Camden area, Ouachita Parish, S. J. Carnes' No. 1 L. Caldwell, Section 12-14-19, about 6 miles southwest of the discovery well, is coring at 1,262 feet. Kraft Oil Corp.'s No. 1 Rath & Cartier, Section 32-13-17, is shut down waiting orders after testing salt water at 1,448 feet. J. D. Reynolds' No. 1 M. Bragg, Section 25-13-18, an offset to the lone producing well in that area, tested salt water and stands temporarily abandoned at 1,392 feet.

The Rainbow Field failed to report a completion during the past week and drilling operations in that area have slowed down considerably during the last month. The deeper pay in the red beds, about 165 feet deeper than the original pay sand in that field, has proven to be inconsistent and spotted.

Daily Production

Estimated daily gross production of all companies for week ending March 8 follows:

NORTH LOUISIANA

	Bbls.
Bellevue	635
Caddo light	4,340
Caddo heavy	1,795
Converse	1,075
Cotton Valley	460
DeSoto and Red River	1,460
Elm Grove	385
Haynesville	3,600
Holly	165
Homer	2,715
Pleasant Hill	195
Sarepta-Carterville	505
Urania	3,220
Zwolle	1,995
Total	22,525

SOUTH ARKANSAS

Champagnolle	2,710
El Dorado	2,195
Lisbon	315
Miller County	1,455
Nevada	905
Smackover light	2,240
Smackover heavy	17,950
Stephens	490
Urbana	2,170
Total	30,430

Michigan Produces a Million Barrels in Month; Five Producers Completed During Past Week

By PAUL A. ELLIOTT
Staff Correspondent, Michigan Fields

MUSKEGON, Mich., Mar. 11.—Michigan crude oil production topped 1,000,000 bbls. in February for the second successive month this year and for the second month on record. A total of 1,032,811 bbls. was reported for February by the Michigan proration committee, a new high daily average record because of the short month. The month's total compared with 1,037,220 bbls. produced in January while the daily average was 36,866 bbls. compared with 33,458 bbls. during the preceding month.

Combined production of the Porter and Yost Pools in Porter and Jasper Townships, Midland County, led the State at 816,866 bbls. The Greendale, or original Mount Pleasant Pool, was second with a total of 107,586 bbls., while the combined Vernon and Leaton Pools of Vernon and Denver Townships, Isabella County, produced 71,395 bbls. Other production was reported as follows: Ogemaw County, 17,227 bbls.; Montcalm County, 6,691 bbls.; Muskegon, 6,664 bbls.; Oceana, 3,640 bbls., and Saginaw and Lapeer Counties combined, 2,940 bbls.

An increase of nearly 3,000 bbls. was estimated by the proration committee which set the potential daily "pressure production" at 49,066 bbls. as of March 1 compared with 46,250 bbls. a day as of February 1.

Daily Runs Decrease

Because of a decrease in the percentage of proration allowed per well, however, from 40 to 30 per cent of the potential over the 75-bbl. minimum exemption, the average daily runs for March were estimated at nearly 3,000 bbls. less, or a cut from 36,646 to 33,768 bbls. a day. The principal reduction is anticipated in the Porter Pool and the Yost area, the only pools affected by proration at this time. All others are permitted maximum production as no wells exceed the 75-bbl. minimum.

Although the federal allowable for March was set at 31,600 bbls. a day, the proration committee has filed a request for an increase anticipating favorable action in view of the increase to 33,000 bbls. a day allowed retroactively for February. The reduced proration schedule is expected to keep the output within 34,000 bbls. a day and perhaps less during March.

New initial production brought in during February aggregated about 3,000,000 feet of gas and 3,052 bbls. of oil from 29 wells in 15 townships of seven Michigan counties. Nine dry holes were listed. The 38 February completions compare with 25 during January. New oil production for February was about 10,000 bbls. less than in January, while new daily potential gas flow was nearly eight times the total of 400,000 feet recorded during January.

Fifteen holes were completed in Midland County, four dusters, two in Mount Haley Township, and one each in Porter and Jasper Townships. Porter's new oil potential aggregated 1,708 bbls. with 247 bbls. in Jasper Township and 50 in Greendale Township, a Midland County total of 2,005 bbls.

Isabella County gas completions added 2,000,000 feet of gas potential and Mecosta County 1,000,000 feet. Two western Michigan counties, Allegan and Kent, recorded a dry hole each. Nine Ogemaw County completions added 862 bbls. a day while one 25-bbl. Berea well was completed in Saginaw County. Isabella also had four small oil well completions and one dry hole.

Five new producers, two for 95 bbls. of oil and three for 10,396,000 feet of gas with three dry holes comprised the completion record of the past week.

Austin—Mecosta

Mecosta Development Co., of Muskegon, brought in No. 1 E. C. and Lovicia M. Dart, C NW SW Section 11-14n-9w, Austin Township, Mecosta County, for an open flow gauged at 8,196,000 feet a day in the Michigan Stray gas sands topped at 1,426 feet and drilled to 1,432 feet. It was reported the hole was drilled a little too deep and struck bottom water but will be plugged back.

The well is within a quarter of a mile of a new 1-mile extension of the American-Michigan Pipe Line Co.'s main line now being laid to take the gas from this and H. C. Nelson's No. 1 Myrtle Spittler, a 14,400,000-foot producer, also in Section 11, which has been shut in without an outlet for more than a year. Gas will be taken ratably as from other wells in the field at 15 cents at the well. Both concerns must lay the connecting quarter of a mile of 3 or 4-inch line under an order of the Michigan Public Utilities Commission. Fred H. Roth, Jacob Bolema and Albert R. Wendt, all Muskegon business men, are president, vice president and secretary-treasurer of the Mecosta Development Co.

Jasmid Oil Corp.'s No. 1 Coopersville State Bank, C S half Section 22-13n-10w, Aetna Township, was near the Michigan Stray sands though temporarily shut down at 850 feet on a wildcat location in Mecosta County. Columbia Oil & Gas Co. was drilling No. 1 Freeman, SW SW SW Section 24-13n-8w, Hinton Township.

Lakeside Gas & Oil Syndicate's No. 1 William Dye, C NE NE Section 23-15n-8w, Martiny Township, was dry and abandoned at a depth of about 1,400 feet after failure to strike production in the Michigan sands. Another test was drilling in the same township.

Four Mecosta County tests were shut down, one in Mecosta Township, one in Millbrook Township and two in Sheridan Township, with one rigging in Millbrook and another rig built in Sheridan.

Isabella County

The largest of the other two gassers, both in Isabella County, was Fletcher and Lemen's No. 1 Fred Sinclair, C NE NE Section 15-14n-6w, Broomfield Township, which made 1,700,000 feet open flow after a shot in the Michigan sands. The other was Chartier's Oil Co.'s No. 1 Gus Pollard, C NW NW Section 1-15n-4w, Isabella Township, which made 500,000 feet a day after topping the Michigan Stray at 1,287 feet and drilling to 1,291 feet.

Wittmer Co.'s No. 1 John Pollard Estate, C S half SW SW Section 1, same township, also struck a flow of about 400,000 feet at 1,310 feet but drilled into water and will be carried on to the Dundee for a deeper test.

Two Chippewa Oil & Gas Co. tests, No. 1 Mrs. Diehl, C NE SE Section 15, Broomfield Township, and No. 1 Carl Rhode, C SW NE Section 15, same township, has not yet drilled into the Michigan Stray although their completion was expected this week.

Arbaugh Brothers' No. 1 Ray Aldrich, C NE SE Section 22, Broomfield, was shut down at 1,047 feet just above the pay. Brehm & Bond Syndicate's No. 1 William West Estate, SE NE NE Section 25, Isabella Township, also was nearing the Dundee at more than 3,000 feet. Three others in Isabella Township were just starting in Sections 13, 14 and 25, respectively.

Pure Oil Co.'s No. 1 Lucy Baker, SW NW SE Section 15-3n-5w, Fremont Township, was to be cased at about 4,000 feet preparatory to drilling into the Monroe.

Youmans-Dalton Oil & Gas Co.'s No. 1 Charles Wheelock, C SW NE Section 31-15n-6w, Sherman Township, Isabella County, was shut down at 900 feet, or not far above the Michigan Stray sands, while drilling was expected to be resumed this week on Hal-Be-Oyle & Gas Co.'s No. 1 O. D. Leiter, SE NE SW Section 33, same township, after being shut down for many weeks at 1,270 feet. Two others were starting in Sherman Township, one was shut down in Rolland Township, another was shut down in Vernon and one drilling.

John F. Melvin's No. 1 Fred DeStoop, SE SE NE Section 2-14n-4w, Chippewa Township, which came in with an estimated flow of 80 bbls. an hour in the upper Traverse at 3,011 feet a week before, dropped to 40 or 50 bbls. a day after making 100 bbls. in 45 minutes. It will be produced as long as it is profitable before deepening to the Dundee.

J. W. Leonard, Jr. and others on No. 2 Stanley Demski, SW SE SE Section 28-15n-3w, Denver Township, Isabella County, was drilling at more than 2,150 feet as the deepest of 10 tests in the township. Six were just starting in Sections 19, 28 and 33, two were shut down in Section 30 and one was fishing for casing in a completion job on the McClanahan Oil Co.'s No. 1 B. Wonsey in Section 33.

Ogemaw County

Weber Oil Co.'s No. 1 Anna M. Schick, NW NW NE Section 29-22n-2e, West Branch Township, Ogemaw County, was the larger of two small oil wells completed last week making 70 bbls. a day in the Dundee topped at 2,534 feet and drilled to 2,714 feet. Theodore Oil Co.'s No. 1 on the Ogemaw Country Club lease in Section 20, was increased from 40 to 200 bbls. a day for an increase of 160 bbls. by acid treatment. Weber Oil Co.'s No. 1 V. Nelson, SW SW SW Section 26, same township, was nearest the Dundee while A. R. Nelson, trustee's No. 1 Victor Nelson, NE NE SE Section 33, was still shut down just above the Dundee but expected to be drilled in soon.

Another West Branch Township test was drilling at 800 feet in Section 20 while two others, one in Section 19 and the other in Section 34, were shut down.

Muskegon Oil Corp.'s No. 2 Harriet Wilson, NE SE NE Section 24-22n-1e, Ogemaw Township, topped the Dundee at 2,615 feet and was drilling in. One other Ogemaw Township test was drilling at more than 1,040 feet in Section 13 and two were starting in Section 24. Patterson and Louis' No. 1 William P. Price, SW SW SE Section 31-22n-3e, Churchill Township, same county, was drilling into the Dundee after topping it at 2,462 feet. Another Churchill Township test was fishing for drive pipe.

Four other Ogemaw County tests included one drilling and one shut down in Section 6, Mills Township, one starting in Section 6 and one shut down with the rig erected in Rose Township.

Saginaw County

Smith Petroleum Co.'s No. 2 Edward E. Parlberg, C S half NW SE Section 20-10n-6e, Birch Run Township, was completed last week for about 25 bbls. a day in the Berea formation topped at 1,526 feet and drilled 4 feet in to 1,530 feet. Two other Saginaw County tests, one shut down in Chapin Township and another in Tittabawassee Township, were uncompleted.

Tuscola County

Another of the three dry holes of the week was William F. Weichers' No. 1 Gray, NE SW SW Section 8-12n-8e, Juniata Township, Tuscola County, which was abandoned in the Dundee.

Midland County

The third and greatest disappointment of the week was W. Hunter Atha's No. 1 Bougher, C S half NW SW Section 25-13n-1e, Mount Haley Township, Midland County, which was dry, plugged and abandoned at 3,530 feet after striking water in the Dundee topped at 3,434 feet. It was 2 miles east of same operator's No. 1 Moran, discovery well in this area 3 to 5 miles east of the Porter Pool.

Pure Oil Co.'s No. 4 H. H. Peek, SE SW NW Section 16-13n-1w, Porter Township, Midland County, made 112

Administrator's Report on Crude Stocks

WASHINGTON, D. C., Mar. 11.—Stocks of domestic and foreign crude petroleum at the close of the week ended March 2 totaled 323,575,000 bbls., according to data compiled by the Bureau of Mines, Department of the Interior, for Petroleum Administrator Harold L. Ickes. In comparison with the data for the previous week, this total represents a net increase of 2,208,000 bbls. and comprises increases of 2,013,000 and 195,000 bbls., respectively, in stocks of domestic and foreign crude petroleum.

Current reports of the industry indicate that although crude oil production in Texas increased, the output in the majority of the states was lower, with the result that the national average for the week ended March 2 was about 2,545,000 bbls., or 45,000 bbls. less than the average of the previous week. Daily average imports were 119,000 bbls., or nearly three times the average of the previous week. Daily average crude runs showed the usual end of the month decline, the average for the week being about 2,445,000 bbls.

STOCKS OF CRUDE PETROLEUM, FEBRUARY 23 AND MARCH 2, 1935

Grade of crude oil—	Feb. 23	Mar. 2
Pennsylvania Grade	4,354,000	4,406,000
Other Appalachian	981,000	990,000
Lima-N.E. Indiana-Michigan	1,246,000	1,198,000
Illinois-S.W. Indiana	11,515,000	11,490,000
N. Louisiana and Arkansas	9,722,000	9,540,000
West Texas and S.E. New Mexico	31,016,000	30,923,000
East Texas	29,608,000	30,370,000
Other Mid-Continent	148,248,000	148,284,000
Gulf Coast	19,440,000	20,027,000
Rocky Mountain	27,625,000	27,651,000
California	34,280,000	35,069,000
Domestic crude	318,035,000	320,048,000
Foreign crude	3,332,000	3,527,000
Total*	321,367,000	323,575,000

*Represents approximately 93 per cent of total stocks in the United States, exclusive of producers' stocks.

bbls. a day after acid treatment, more than quadrupling its original flow of 25 bbls. a day. Two other Porter wells were completing one in Section 7, and one testing in the upper Traverse in Section 22, five were drilling above the Traverse, 13 were just starting and one was shut down.

Warren—Midland

Considerable interest was displayed in Howard L. Foster and J. V. Wicklund's No. 1 Carrie Neal, SE NE SE Section 13-16n-2w, Warren Township, following a lease sale which drew good bids in the area.

Special interest was aroused by the announcement the red rock, first indicator in Michigan fields, was encountered at a higher point in the Neal well than in Whitehill's No. 1 Kintner discovery in Beaverton Township, Gladwin County.

Mr. Wicklund made the highest bid in a state lease sale paying $6.25 an acre for an 80-acre tract in Warren based on his confidence in the test now drilling below 2,000 feet. The Neal well with an elevation of 704.1 feet struck the Marshall at 1,300 and the Red Rock at 1,415 to 1,500 feet. This compares with an elevation of 730 feet in the Kintner, the Marshall at 1,347 feet and the red rock from 1,474 to 1,515 feet. The Kintner's total depth is 3,886½ feet. Edenville Township adjoining Warren was the second objective of the bidders. Mecosta County acreage brought low bids with some leases going for a dollar a description.

Howard F. Patterson's No. 1 David Haskins, NW NW SW Section 25-13n-2e, Ingersoll Township, Midland County, was about to be cased with 3-inch tubing to drill into the Monroe formation after setting 5-inch above the Dundee at 3,395 feet. Seven other Midland tests were uncompleted, including one starting in Jasper Township, one starting in Lee, one drilling, one shut down and two starting in Greendale, and one uncompleted in Mills Township.

Gladwin County

Roosevelt Oil Co.'s No. 1 Arnold Haviland, SE NE SE Section 4-17n-2w, Beaverton Township, Gladwin County, drilling at more than 3,000 feet, was being watched as the next completion in the Gladwin area and the first since the discovery was brought in several months ago. Sun Oil Co. was drilling at about 500 feet in Tobacco Township with two others, one in each township, starting.

Western Michigan

Two West Michigan Consumers Co. wells drilled into the Monroe gas sands more than a week ago with an estimated open flow of 100,000 feet a day were completed last week with a gauged flow of 140,000 and 160,000 feet for a total of 300,000.

No. 1 John B. Nichols, C S half SE NW Section 8-10n-16w, Muskegon Township, made 140,000 feet and No. 1 Stanley Daniloff, SW SW SE Section 5, same township, flowed 160,000 feet after shooting. When turned into the West Michigan's line serving 25 major industries of Greater Muskegon the former was good for 41,000 and the latter for 71,000 feet a day against a back pressure of 80 to 125 pounds.

West Michigan immediately moved one of the two rigs to deepen No. 1 H. B. Smith, NE NE SE Section 8, to the Monroe. Another Monroe test also will be started in the Michigan Township Field.

Two Oceana County tests have been started on adjoining leases, H. C. Nelson's No. 2 Viola Smith, NW NE NE Section 36-15n-17w, Hart Township, and John B. Northcott's No. 3 Jane Pinder, W half NE NW Section 31-15n-16w, Elbridge Township.

Wildcats

Talbot Oil Co.'s No. 1 McPherson estate, NE NE NW Section 35-3n-4e, Howell Township, Livingston County, struck another pocket of gas in the Trenton limestone last week and was reported

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Several Good Producers Are Reported Among Turner Valley Completions

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Mar. 9.—Official figures show that crude oil production in January from Alberta totaled 110,424 bbls., compared with 105,804 bbls. in December. Turner Valley naphtha amounted to 106,173 bbls., against 101,638. Turner Valley light crude was up to 1,967 bbls. from 1,690. Red Coulee light crude decreased from 1,701 to 1,633 bbls. and Wainwright heavy crude from 775 to 651 bbls.

In the Turner Valley Field, Royalite Oil Co. was the major producing unit with 36,749 bbls., including the output of the gasoline absorption plant. The Mercury-Miracle organization ranked second, with 15,907 bbls., Highwood-Sarcee Oils, Ltd., third with 8,725 bbls., representing the production from its No. 1 well, the largest producer in the field. Model Oils, Ltd., with two wells ranked fourth, producing 5,228 bbls.

The new Turner Valley completions show several good producers. Century Royalties' No. 1, LSD 14, Section 28-18-2w5, made 4,096 bbls.; Carleton Royalties' No. 1, LSD 2, same section, 3,798 bbls.; and Director Royalties' No. 1, LSD 16, same section, 3,900 bbls. estimated production. Pacalta Oils' No. 1, LSD 7, Section 28-18-2w5, has an estimated production of 750 bbls., and Publix Oil & Gas Co.'s No. 1, LSD 8, same section, made 168 bbls. while drilling.

In the Red Coulee Field, the Vanalta wells produced 1,209 bbls. and the O'Neil interests 424 bbls. The Wainwright Field listed only three producers, of which Sasko-Wainwright Oil & Gas Co.'s No. 1 was the largest, with 288 bbls.

Turner Valley Field

In Section 28-18-2w5, South Turner Valley Field, Publix Oil & Gas Co.'s No. 1, LSD 8, is at 5,085 feet, 165 feet in the lime, with wet gas flow of around 5,000,000 feet. It is testing for crude naphtha recovery. Pressure builds up to about 600 pounds in 45 minutes. It will likely be deepened. In the same section British Dominion Oil & Development Corp.'s No. 4, LSD 6, is finishing a fishing job in the Home sands at 5,240 feet, where it has considerable wet gas, but will be continued to the deep lime. Pacalta Oils' No. 1, LSD 7, same section, bottoming in the lime at 5,550 feet, is clearing itself of water. Naphtha recovery at times reaches 75 bbls. a day.

In the far south end, Northwest Royalties' No. 1, LS D5, Section 21-18-2w5, is below 2,400 feet in a hard formation, and Union Freehold Oil Corp.'s No. 1, LSD 8, has drilled out cement and is testing light crude production from the brown sand of the Dalhousie formation at 5,326 feet.

On the east side, Merland Oil Co.'s No. 1, LSD 13, Section 27-18-2w5, is deepening from 2,875 feet.

In the North Turner Valley Field, Royalite Oil Co.'s No. 26, LSD 5, Section 23-20-3w5, is below 3,450 feet.

Aldersyde Structure

On the Aldersyde structure east of Turner Valley, Ranchmen's Gas & Oil Co.'s No. 1, LSD 16, Section 13-20-28w4, is resuming from 6,263 feet where it got what was apparently the top of a sand, with fair shows of oil and gas. It has cleaned out and run 5-inch casing to the bottom. It will be deepened a short distance and a production test made.

Globe Syndicate of Calgary, headed by M. I. Davies, is organizing Globe Royalties, Ltd., and has made tentative plans for its No. 1 in Section 2-20-29w4. It will do its own drilling.

There have been some transfers of acreage in the Aldersyde area recently, and a number of additional locations may be made. Last summer a seismographic survey of the Aldersyde and High River area resulted in filing by Imperial Oil, Ltd., Canadian Western Natural Gas, Light, Heat & Power Co. and Denver interests. Most of this filing was south of Ranchmen's No. 1, with some toward the west.

Vermilion Gas Test

In the Vermilion district, east central Alberta, Tenwell Gas & Oil Co.'s No. 1, LSD 9, Section 36-50-7w4, is rigged up. The company is endeavoring to secure a natural gas supply for Vermilion.

Border Fields

In the border fields of Southern Alberta, Terminal Oil Co.'s No. 1, NE Section 18-1-21w4, on the Del Bonita structure near Lethbridge, will resume toward the end of March. Spudded last fall, it has been standing at 318 feet. It is on Nordon Corp. acreage. Development followed fairly encouraging oil shows in two tests by Nordon Corp. and allied interests in the adjacent Twin River structure.

Hudson Bay Junction

Systematic development work is being undertaken in the Hudson Bay Junction area of northern Saskatchewan. Last fall, Trail Blazer Oil & Gas Co.'s No. 1, SW Section 32-44-3w2, got a show of asphaltic crude at 590 feet and deepened to 610 feet when the oil rose about 100 feet in the hole. It has since been left standing, pending further plans. Arrangements have been made for defining of the subsurface structure by a series of shallow tests by Amalgamated Oils, Ltd., an affiliated concern. No. 1 test at 277 feet had 250,000 feet of gas per day with rock pressure of 150 pounds; and structure testing to approximately this depth will be continued.

The drilling has upset preconceived theories that the beds rose unbrokenly from the southwest to outcrop along the Manitoba escarpment, with no folding or faulting, and that there would be no possibility of oil or gas accumulations as the hydrocarbons would be dissipated through the outcrops. Closer investigation has shown light oil seeps associated with gas along fault lines on the west flanks of the mountains comprising the so-called escarpment; and geological work and drilling in the past year or more have proved the presence of both faults and folds. Light crude seepages at a distance from the recent drilling are important as indicating the lower horizons will yield a better grade of crude. The show of asphaltic crude in Trail Blazer's No. 1 was apparently met in the top of the Devonian. Both the Niobrara and the Benton formations, potentially oil-bearing, are present in this area. Salt brines are encountered, and gas, apparently present at shallow depth, could be commercially utilized for evaporation of these, as well as for drilling fuel. Hudson Bay Junction is on the Canadian National Railway so the potential field is fairly convenient to transportation.

Manitoba Drilling

In Southern Manitoba, Winnipeg interests have a machine on the ground for a test of the Pilot Mound structure where there is a well-defined, small, sharp structure. Drilling will start when titles are cleared. Drilling contract has been let and casing is on the ground and the test will likely be under way in April. In the same district a test south of Manitou is standing at about 800 feet, waiting for casing to shut off water.

There is a large potential producing area in southwestern Manitoba and southeastern Saskatchewan where practically no drilling has been done, though a number of known oil-bearing horizons including the Devonian are present.

The latest report of Dr. G. S. Hume of the Geological Survey of Canada points out that small flows of natural gas have been obtained in this area. In southwestern Manitoba the gas has supplied fuel for some farm houses. No oil in commercial quantities has been found. The report adds:

"There does not appear to be any reason, however, why both natural gas and oil should not occur provided structures suitable for their accumulation exist. The Paleozoic has not been proved to be a source rock for oil or gas over a great part of the plains, but the overlying Mesozoic contains a number of probable source beds. It is known marine Jurassic occurs in southwestern Saskatchewan and although the sediments of this age are variable from place to place their occurrence with oil in Alberta suggests, if favorable structures exist, they might also yield oil in southwestern Saskatchewan. It is also known the lower Cretaceous in western Saskatchewan contains some marine beds and these probably alternate with nonmarine beds, indicating sedimentation conditions that could give rise to oil and gas source beds. In Alberta the close association of the older beds of Colorado age with numerous gas fields souggests these Colorado beds are probably the source of the gas. These strata continue across Saskatchewan into Manitoba and although over such a vast area the conditions governing the entombment of organic life in the sediments may have been quite divergent, there is nothing to suggest the strata of Colorado age might not also be source rocks for gas in the eastern as well as the western prairies. They are overlain in Saskatchewan and Manitoba by marine shales of Montana age in which at a few places small shows of gas have been encountered. Shales of upper Cretaceous age in Pasquita Hills, Manitoba, have been shown by Ells to be capable of yielding 3 to 10 gallons of oil a ton on distillation. It is probable shales of this character, if subjected to the proper dynamic conditions under adequate cover, would afford both oil and gas. It would appear, therefore, that source rocks for oil and gas are probably present in many parts of Saskatchewan and Manitoba and drilling is warranted at any place where the reservoir rocks are under an impervious cover and are folded sufficiently to cause an accumulation."

Ontario Fields

In the Dover Field, Kent County, Ontario, Ajax Oil & Gas Co.'s No. 10, Harry Stirling farm, Lot 1, Concession 4, Dover East Township, is below 1,000 feet. Prairie Oil & Gas Co.'s No. 3, Stephens farm, Lot 2, Front Concession, Dover East, is below 1,000 feet. F. H. Stover & Son's No. 3, Peter Jubenville farm, Lot 3, Front Concession, is spudding. It is between 800 and 900 feet north of Stover's No. 1 gasser.

In the Tilbury Field, Kent County, Ladd & Ziegen's No. 1, Guy Mifflin farm, Lot 7, Concession 14, Tilbury East Township, was given a second shot, but secured little if any increase in gas production.

In the De Clute Field, Kent County, Gas Producers' Syndicate's No. 3, Gilbert Pardo farm, E half Lot 140, Talbot Road, Raleigh Township, finished with a flow of approximately 17,500,000 feet a day. It is believed to be the largest gasser completed in Ontario, and brings the aggregate open flow from the company's three wells on the Pardo lease to around 25,000,000 feet a day. Production is being taken by Southern Ontario Gas Co. West of the Pardo lease, Union Gas Co.'s No. 27, Benedict farm, W half Lot 140, offsetting Gas Producers' No. 2, has been connected with the Union lines and is delivering production.

In the Eden Field, south of Tillsonburg, Middleton-Norfolk Gas Co.'s No. 2, Vernon McDonald farm, Lot 5, Concession 3, North Talbot Road, Middleton Township, Norfolk County, has been deepened a little. It has a large flow of

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California Producers and Refiners Are Concerned Over Allowables and Oil Storage Situation

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Mar. 11.—There seems to be considerable diversity of opinion as to how much crude oil California should be allowed to produce each month. Producers are asking for a higher allowable while some refiners think the output is too large. The chief stumbling block seems to be in the regulation of refinery operations because as long as refiners are prevented from utilizing facilities to the best advantage they are handicapped in their efforts to absorb crude oil production.

California has sent a delegation to Washington to explain in detail the complicated problems confronting buyers. One group wants permission to top crude oil in order to store fuel oil in reservoirs because of a shortage of steel tanks and another desires a revision in refinery allotments in order to meet the demand for fuel oil.

The attempt to convince officials of the necessity of a revision in existing practice is of special interest because of the strong position occupied by fuel oil and the possibility that this commodity may become of further importance. Not a single barrel of fuel oil has moved to the East Coast for domestic consumption during 1935 and consequently marketers are relying on foreign business and the maintenance of a normal demand in Pacific Coast territory. So far the situation has been favorable but it remains to be seen what the balance of the year holds in store. This is of special interest because crude oil produced on Bahrein Island in the Persian Gulf is making inroads into the demand for California crude and refined oil. This factor has not received much consideration but the fact remains that the tanker W. S. Rheem has already made one trip from Bahrein Island to Japan with a cargo of crude oil and is at the present time en route with another. This Bahrein crude has displaced an equal quantity of California crude and if the movement between Bahrein and Japan becomes any greater it will exert an important effect on California.

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Feb. 24		Feb. 17			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Fuel oil	.....	.....	.....	.....	.....	2,644,425
Diesel and gas oil	.....	.....	.....	.....	391,997	346,851
Gasoline	116,908	16,701	126,937	18,134	1,046,795	670,759
Kerosene	.....	.....	.....	.....	78,460	303,121
Foreign exports—						
Crude oil	336,727	48,104	237,727	33,961	1,505,348	1,358,232
Fuel oil	143,600	20,514	361,020	51,574	2,033,520	1,639,573
Diesel and gas oil	.....	.....	.....	.....	294,531	713,603
Gasoline	76,743	10,963	91,509	13,073	509,998	636,485
Kerosene	.....	.....	39,950	5,707	190,511	177,403
Other unfinished oil	.....	.....	2,547	364	37,097	34,363
Coastwise-domestic—						
Crude oil	67,180	9,597	347,894	49,699	1,114,560	601,634
Fuel oil	201,948	28,850	125,067	17,867	1,757,979	1,831,778
Diesel and gas oil	1,767	252	55,347	7,907	139,934	113,550
Gasoline	189,335	27,048	163,876	23,411	1,361,854	1,671,416
Kerosene	5,967	852	.....	.....	31,563	21,379

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	.....	.....	.....	.....	78,075	313,695
Gasoline	.....	.....	.....	.....	.....	72,625
Kerosene	.....	.....	79,205	11,315	79,205	80,925
Asphalt	.....	.....	71,325	10,190	71,325	.....
Lubricants	.....	.....	.....	.....	4,005	8,310
Foreign exports—						
Crude oil	.....	.....	187,861	26,837	357,485	291,525
Fuel oil	14,720	2,103	78,347	11,192	218,729	161,706
Diesel and gas oil	.....	.....	.....	.....	74,557	353,738
Gasoline	.....	.....	181,822	25,973	475,317	565,907
Kerosene	.....	.....	35,527	5,075	77,666	131,662
Lubricants	.....	.....	2,703	386	22,116	21,460
Coastwise-domestic—						
Fuel oil	100,364	14,338	73,921	10,560	570,309	600,841
Diesel and gas oil	.....	.....	.....	.....	10,490	49,287
Gasoline	93,796	13,397	16,127	2,304	542,279	376,557
Kerosene	2,198	314	.....	.....	6,078	19,928

Mountain View

Two good wells were finished in the Mountain View Field of Kern County last week and a check of development work under way indicates the probable completion of several more within the next 30 days. The Hancock Oil Co. finished its No. 4 Miller in Section 14-30-28, the well flowing 3,300 bbls. of clean 31.6 gravity oil per day from 5,340 feet. Union Oil Co. completed No. 3 Wible flowing 6,480 bbls. of clean 30.9 gravity oil from 5,602 feet after the hole had been plugged back from 5,610 feet. The Barnsdall's deep test in the Mountain View Field has reached a depth of 7,880 feet but has not yet found the anticipated deep zone. This well will have to go another 300 feet before reaching the lower Porter-Day zone although it is rather difficult to venture a guess as to probable completion depths in this field.

The Edison Field of Kern County did not yield any new wells this week. Development work in this district is rather erratic due to the fact that the area is made up of several independent pools and consequently operators are proceeding with caution. Several wells are scheduled to be given production tests in the near future. The Ohio Oil Co. drilled its second duster on the Cauley lease in Section 36-30-29 and will probably abandon the lease. No. 2 Cauley was bottomed at 1,400 feet in granite and did not show anything from top to bottom.

Montebello

The Montebello Field of Los Angeles Basin is still somewhat of an enigma although all indications point to the possibility that the productive limits will ultimately be extended to the east. This deduction has been confirmed by the outcome of the Universal Consolidated's No. 2 Nutt which was given a production test a few weeks ago at 5,122 feet. The well did not show much as far as production is concerned although it looked good for approximately 1,000 bbls. per day upon completion. The significance which attaches to this completion lies in the fact that No. 2 Nutt is producing from the Pliocene whereas No. 1 Cruz located to the west is producing from the underlying Miocene. This is of particular importance because No. 1 Cruz, located between No. 2 Nutt and the older section of the field, failed to encounter the oil zone in the Pliocene. This tends to indicate that the new extension of the Montebello Field extends east of present production instead of west as had been originally believed.

The situation confronting operators in the Montebello Field is rather complex because it is the first case of its kind on record. Ordinarily when an outpost develops commercial production it indicates that wells located higher structurally are almost assured of getting large production. In this instance, however, none of the more favorably located wells drilled subsequent to completion of No. 1 Cruz was successful in picking up the deep Cruz zone. Dry holes have already been drilled on three sides of No. 1 Cruz and this led the Universal Consolidated to move farther east. As a result the company found a new zone in the Pliocene which overlies the Miocene. Due to the failure of No. 2 Nutt, the Universal's eastern outpost, to develop substantial production in the Pliocene, it is quite likely that the company will deepen this well to the Miocene in the very near future. Five wells are being held in abeyance pending the decision of Universal Consolidated with reference to deeper drilling. It is unofficially reported that the Universal Consolidated is not satisfied with the results to date and would entertain offers of dry hole money.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Speik, F. A., No. 1 Athens, Los Angeles Co.	2- 3-14	5,190	suspended
Lennox Oil Fields Co., No. 1 Hawthorne, Los Angeles Co.	4- 3-14	.....	material
Macrate, A. N., No. 1 Athens, Los Angeles Co.	18- 3-13	6,244	recmtd. 6,215
Republic Pet., No. 1 Lawndale, Los Angeles Co.	18- 3-14	981	sd. sh. drlg.
Associated Oil Co., No. 2 Inglewood Deep, Los Angeles Co.	7- 2-14	1,356	cmtd. 1,346
Standard Oil Co., No. 4 Inglewood Deep, Los Angeles Co.	17- 2-14	1,184	cmtd. 1,154
Standard Oil Co., No. 5 Inglewood Deep, Los Angeles Co.	17- 3-14	5,986	sd. sh. drlg.
Ohio Oil Co., No. 16 Del Rey, Los Angeles Co.	28- 2-15	3,280	sd. sh. drlg.
Bel-Mar Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	181	sd. drlg.
Elliott, D. W., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,385	O.S. 6,275
Pacific Drlg. Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,280	coring
Mammoth Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,240	O.S. cmtd.
Fourl, C. W., No. 3 Del Rey, Los Angeles Co.	27- 2-15	6,411	redrlg. 4,780
Fourl, C. W., No. 4 Del Rey, Los Angeles Co.	27- 2-15	....	rigging up
Mathews Pet. Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	5,460	rebldg. rig
Royalty Service Corp., No. 1 Del Rey, Los Angeles Co.	27- 2-15	5,994	sd. sh. drlg.
Lor-Mar Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	1,351	sd. sh. drlg.
Schirm & Thayer, No. 1 Del Rey, Los Angeles Co.	27- 2-15	....	bldg. rig
Union Oil Co., No. 7 Del Rey, Los Angeles Co.	27- 2-15	6,217	flow 8,460 b.d.
Union Oil Co., No. 8 Del Rey, Los Angeles Co.	27- 2-15	....	bldg. rig
Union Oil Co., No. 9 Del Rey, Los Angeles Co.	27- 2-15	4,086	sd. sh. drlg.
Big Ben Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,680	sd. sh. drlg.
Doyle Pet. Co., No. 1 Manhattan, Los Angeles Co.	30- 3-14	6,005	hd. sd. drlg.
Severns Drlg. Co., No. 1 Torrance, Los Angeles Co.	24- 4-14	1,871	sd. sh. drlg.
Vance Dev. Co., No. 1 Artesia, Los Angeles Co.	35- 3-12	....	rig, suspended
Frontier Oil Co., No. 1 Pico, Los Angeles Co.	7- 2-11	2,871	sd. sh. drlg.
Universal Consd., No. 4 Montebello Deep, Los Angeles Co.	6- 2-11	5,122	may deepen
Shively, N. O., No. 1 Puente Hills, Los Angeles Co.	23- 2-10	3,185	cmt. 2,311
Pressel & Tull, No. 1 Puente Hills, Los Angeles Co.	30- 2- 9	4,200	hd. sd. drlg.
International Dev. Co., No. 1 Saugus, Los Angeles Co.	34- 5-16	4,335	C.P. 2,005
Barstow Oil Co., No. 1 Castaic, Los Angeles Co.	35- 5-16	3,255	suspended
Republic Pet. Co., No. 1 Newhall, Los Angeles Co.	6- 3-16	1,812	P.B. 1,085
Black Eagle Oil Co., No. 1 Huntington, Orange Co.	tideland	4,702	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	6,485	bailing
B. & B. Oil Co., No. 1 Newport, Orange Co.	19- 6-10	4,676	suspended
Shannon, C. G., No. 1 Yorba Linda, Orange Co.	21- 3- 9	5,777	suspended
Great American Pet. Co., No. 2 East Coyote, Orange Co.	19- 3- 9	3,366	bailing
Bartholomae Oil Co., No. 3 East Coyote, Orange Co.	32- 3-10	....	rigging up
Tehama Pet., No. 1 Santa Ana Canyon, San Bernardino.	33- 2- 8	2,698	P.B. 2,381
San Diego Pet. Co., No. 1 Chula Vista, San Diego Co.	32-18- 2	6,344	suspended
Stephens, J. T., No. 1 Chula Vista, San Diego Co.	27-18- 2	1,230	hd. sd. drlg.
Edmonds, E. A., No. 1 Trustee, San Diego Co.	29-15- 3	2,431	hd. sd. drlg.
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co.	36- 5- 5	902	suspended
Corona Oil Co., No. 1 Corona, Riverside Co.	27- 3- 7	....	rigged up

Playa Del Rey

Developments in the eastern extension of the Playa Del Rey Field of Los Angeles Basin last week tend to indicate that many operators are underestimating the potentiality of this area. Union Oil Co.'s No. 7 Vidor built up to 8,460 bbls. per day and would have exceeded 10,000 bbls. per day if permitted to flow open. D. D. Dunlap is making preparations to conduct the customary five-day flow test and the outcome should be available before the end of next week. In addition there is a strong probability that two additional wells will be given production tests and this will push field production substantially above the established allowable. These new wells are coming in for higher initials than has been expected and each completion seems to be better than its predecessor.

Most of the new wells finished in the eastern extension have been located in a relatively small area and consequently it will be another two or three weeks before any of the outposts make a bid for production. These outposts are of considerable importance because the results obtained will indicate whether the new area is limited in extent or unrestrained. Up to the present all of the wells finished have been located close to Fourl's discovery well on the Palisades and for this reason the extent of the productive area has not yet been determined. Drilling operations are showing a consistent increase coincident with a broadening in the scope of work. The commission charged with enforcing regulations in this field has been adhering closely to requirements with the result that no permit has been granted in cases where there is not the minimum amount of acreage required. This has prevented intensive town lot drilling in the subdivided area and will be productive of more satisfactory results.

Kettleman Hills

Three new wells were put on production in the Kettleman North Dome Field during the early part of the past week and all of them showed substantial production. The Kettleman North Dome added two new wells to its list of producers by finishing No. 65-30-J flowing 4,646 bbls. of very clean 34.3 gravity oil per day and No. 52-32-J flowing 4,173 bbls. of exceptionally clean 35.1 gravity oil per day. The former was bottomed at 8,766 feet and finished with a 6⅝-inch liner including 239 feet of perforated. The latter was finished at 8,663 feet and completed with a string of 6⅝-inch which was perforated at 7,715-52 feet and at 7,932-8,112 feet and at 8,277-8,655 feet. The Standard Oil Co.'s No. 4-25-J, bot-

tomed at 8,060 feet and finished with a 7-inch combination liner, was brought in flowing 8,210 bbls. of clean 37.2 gravity oil and 5,100,000 feet of gas per day. This new well has perforations at 7,316-7,425 feet, 7,515-7,707 feet and at 7,752-8,050 feet.

The Continental Oil Co.'s test in the South Dome of Kettleman Hills appears to be checking about 1,200 feet higher than the Ohio Oil Co.'s test which failed to result in commercial production due to an abnormal flow of salt water. The Continental is really not deep enough to make a definite correlation but up to the present it seems to be in a much more favorable position. The test of the Continental will bear watching because it is showing up much better than has been expected. The Union Oil Co. has resumed work in No. 1 Lillis-Welsh. In the Middle Dome of Kettleman Hills, the Standard Oil Co. has reached a depth of 3,400 feet in No. 38-29-V in Section 29-23-19. The engineering committee has just completed its survey involving proved and semi-proved acreage in the North Dome and directors of Kenda will act on the report within the next day or two.

Round Mountain

The Honolulu Consolidated completed its No. 32 in Section 18-28-29 in the Round Mountain Field of Kern County, good for 825 bbls. of clean 15.8 gravity oil per day from 2,170 feet after the hole had been plugged back from 2,208 feet. This new well, which was finished on the beam, was completed with a 6⅝-inch liner including 108 feet of perforated. In the Mount Poso Field of Kern County, the General Petroleum completed No. 48 Heisen doing 401 bbls. of relatively clean 15.9 gravity oil per day from 1,840 feet after the hole had been finished with a 6⅝-inch liner carrying 62 feet of perforated. The Union Oil Co. has completed No. 19 S. & M. at 1,700 feet but this new well has not yet been given a production test. Bailing operations were started this morning and unless something unforeseen develops it should be tanking oil within the next 48 hours.

The Union Oil Co. climaxed a long and hard battle up in the North Belridge Field of Kern County by completing No. 18 Belridge at 8,523 feet. The well has just started to flow and consequently the initial daily production has not yet been computed. It does not seem to have kick expected but may pick up after it has had a chance to clean itself. A few months ago this well looked like it would be the biggest producer finished in the field up to that time but unfortunately the company ran into mechanical trouble while the crew was reaming out the hole preparatory to landing liner. Since that time it has been one fishing job after another with the result that it is thought most of the productive formation has been mudded off. The General Petroleum has not had much success in removing the junk from its No. 1 Berry and preparations are being made to plug back from 11,377 feet to around 9,700 feet and begin redrilling operations. In the Midway-Sunset Field, Frank Goldman has completed his No. 2 in Section 22-32-23 but this new well, which is pumping 100 bbls. of 14.3 gravity oil per day, is showing a cut of 25 per cent.

Ventura County

The Merchants Petroleum Co. made a production test of its No. 4 Cochran in Section 1-4-20 in Ventura County which showed an initial of 260 bbls. of clean 21.6 gravity oil per day from 1,988 feet after the hole had been finished with a 6¼-inch liner carrying 850 feet of perforated. This well is located in the Sespe district of Ventura County which has been producing for more than 40 years. Continental Oil Co. is grading location for No. 4 Grubb, a new well to be drilled in the San Miguelito Field of Ventura County, and spud will probably be made some time early in April. Locations in this field are not as easily made as is the case in some other fields due to the rather rough topography.

The Property Service Corp. has not yet succeeded in finishing its outpost in the Ventura Avenue, although the well has shown up rather well during the course of work. The hole ran into water trouble at 7,175 feet and this necessitated plugging back to 7,110 feet. During the past week it was cleaned out to 6,860 feet preparatory to an early test. The Associated Oil Co. is doing the actual drilling on this well for the Property Service Corp. The latter company recently signed a lease with the Shell Oil Co. for the remainder of this lease but the Shell is waiting to find out what the Associated gets in its first outpost. In the Lompoc district of Santa Barbara County the York-Smullin Oil Co. finished its No. 1-A in Section 33-8-34, pumping 325 bbls. of 21.2 gravity oil cutting 6 per cent from 2,850 feet.

Canadian Fields

(Continued from Page 70)

sulphur gas, estimated as high as 5,000,000 feet a day, accompanied by a heavy water flow, around 2,500 bbls. a day, and some difficulty is being experienced getting it in shape for production. Middleton-Norfolk's No. 1, a little north and west on the same lease, got a smaller flow of sulphur gas from the same horizon, but there was less water and it is under control. No. 1 is shut in. About a half mile farther west, Midwal Oil & Gas Co.'s No. 1, Lot 2, Concession 3, North Talbot Road, is around 1,050 feet. At the 900-foot depth it got only small traces of sulphur gas and water and is deepening to the lower sand where the E. R. Rowe wells, still farther west, got commercial flows of sweet gas. None of the tests on the Norfolk or eastern side of the county line has yet been carried to the sweet gas horizon. On the Elgin side, E. P. Rowe's No. 1 and No. 2, Alton farm, Bayham Township, are drilling.

In Haldimand County, Domestic Gas Syndicate's No. 9, Seneca Township, finished with about 50,000 feet a day initial open flow. Domestic's No. 10 is starting. Percy Jackson is in charge. Sovereign Gas Syndicate's No. 2 is rigging.

York Natural Gas Syndicate of Toronto has secured 11 leases, aggregating 902 acres, in Seneca Township, Haldimand County. Six wells have been spotted and No. 1 is reported drilling. Operations are under direction of the company's geologist, F. L. James, B.Sc. The producing horizon is between 550 and 650 feet. Production will be taken by the Dominion Natural Gas Co. whose transmission line traverses the syndicate acreage.

Alberta Operations

In the border areas of Southern Alberta, Franco Oils' No. 1, LSD 6, Section 5-3-25w4, on the Cardston structure is below 2,100 feet and running casing, before deepening for gas production.

Fuel oil is being hauled to Terminal Oil Co.'s No. 1, NE Section 18-1-21w4, on the Del Bonita structure, and drilling will resume from 318 feet late in the month.

In the southern foothills, north of Lundbreck, Mar Jon Oil Co.'s No. 3, LSD 3, Section 4-10-2w5, has resumed from 750 feet, after a shutdown due to freezing of the water supply. Mar Jon-Maxmont's No. 4, LSD 10, Section 20-9-2w5, is underreaming with bottom at 1,800 feet.

Michigan Fields

(Continued from Page 70)

drilling at 5,540 feet as one of the deepest tests in Michigan.

J. W. Leonard et al's No. 1 Otto and Goldie Durbin, NW NW NE Section 11-10n-5w, Crystal Township, Montcalm County, was reported to have had a show in the upper Traverse and was drilling at more than 3,000 feet. Golden Oil Co.'s No. 1 Steffensen, SW SW SE Section 5-10n-8e, Montcalm Township, was the only other Montcalm County test drilling last week. Two were shut down, one in Pierson Township and the other in Richland, while two were starting, one in Home and the other in Day Township.

Black Diamond Petroleum Syndicate's No. 1 Vaughn, NW NW NE Section 28-24n-2w, Lyons Township, Roscommon County, was reported rerunning pipe at 3,246 feet before testing the Dundee.

New Locations

Nine permits for new tests were issued, including one for Beaverton Oil & Gas Syndicate's No. 1 Hattie Ross, SE SW NE Section 7-17n-1w, Tobacco Township, Gladwin County. They were: Bryand and Martin's No. 1 William Caldwell, C SE NW Section 26-13n-7w, Millbrook Township, Mecosta County; C. C. Goff and Frank Raybuck's No. 1 Frank and Clara Williams, NE SW NE Section 14-12n-7w, Belvidere Township, Montcalm County; United Drillers, Inc.'s No. 1 John D. Vandercook, C SE NE SE Section 24-15n-3w, Denver-Isabella; Wing Brothers' No. 1 Louis Yost, C NW SW Section 14-14n-6w, Broomfield-Isabella; Wittmer Co.'s No. 1 John and Nellie Ervin, C E half NE SW Section 13-15n-4w, Isabella Township and County; Muskegon Oil Corp.'s No. 1 Arthur Fisk, NE NE NE Section 29-22n-2e, West Branch-Ogemaw, and W. J. Bernier's No. 1 Harry Gatehouse, C SW SW Section 36-15n-6w, Sherman Township, Isabella County.

Several corrections in previous locations were given as follows: Michigan Producers & Refiners' No. 2 Pringle Heirs should be SW SW NE Section 14-14n-2w, Greendale Township, Midland County, and McClanahan Oil Co.'s new test in Adams Township, Arenac Township, should be No. 1 A. G. Heath.

Equipment was moved to the Joseph Earnest farm near Reed City, Osceola County, by Smith Petroleum Co. for a new wildcat, while the Eastern Gulf Oil Co. recently recorded 36 leases covering 2,925 acres in Plainfield, Algoma, Cannon and Sparta Township.

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
General Pet. Co., No. 14 Capitan, Santa Barbara Co.	32- 5-30	....	rig, suspended
Shell Oil Co., No. 4 Capitan, Santa Barbara Co.	5- 4-30	1,091	cmtd. 876
Fairview Oil Co., No. 1 Purisima, Santa Barbara Co.	18- 7-34	2,980	test W.S.O.
York-Smullin, No. 2 Lompoc, Santa Barbara Co.	33- 8-34	2,850	pump 297 b.d.
Advance Pet. Co., No. 1 Naples, Santa Barbara Co.	7- 4-29	5,761	cleaning out
Barnsdall-Rio Grande, No. 10-88 Elwood, Santa Barbara	tideland	2,553	hd. sh. drlg.
Barnsdall-Rio Grande, No. 2 Elwood, Santa Barbara Co.	15- 4-29	3,490	Sespe test
East Elwood Pet. Co., No. 1 Elwood, Santa Barbara Co.	14- 4-29	3,767	test W.S.O.
Shell Oil Co., No. 1 Goleta, Santa Barbara Co.	20- 4-26	6,508	recmtd. 5,136
Ortega Oil Co., No. 1 Summerland, Santa Barbara Co.	16- 4-26	4,583	will P.B.
General Pet. Co., No. 4 Rincon, Ventura Co.	tideland	1,100	hd. sd. drlg.
Las Posas Pet., No. 1 Las Posas, Ventura Co.	32- 3-20	7,687	repair mach.
Oil Ridge Oil Co., No. 1 Ventura, Ventura Co.	1- 4-19	1,573	sd. sh. drlg.
El Rancho Oil Co., No. 1 South Mountain, Ventura Co.	9- 3-19	....	rig, suspended
The Texas Co., No. 128 South Mountain, Ventura Co.	4- 3-19	5,677	sd. sh. drlg.
Bolsa Chica Oil Co., No. 2 Piru, Ventura Co.	4- 4-18	701	hd. sh. drlg.
Continental Oil Co., No. 1 Ojai, Ventura Co.	13- 4-23	1,732	sd. sh. drlg.
Prop. Service Corp., No. 1 Lloyd, Ventura Co.	24- 3-23	7,110	test W.S.O.
Continental Oil Co., No. 1 San Miguelito, Ventura Co.	23- 3-24	....	grading
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-26-20	2,271	gr. sh. drlg.
General Pet., No. 1 South Belridge, Kern Co.	30-28-21	11,377	to plug
Union Oil Co., No. 18 North Belridge, Kern Co.	36-27-20	8,523	redrlg. 8,288
Standard Oil Co., No. 1-A North Belridge, Kern Co.	36-27-20	8,071	sd. sh. drlg.
Standard Oil Co., No. 2 North Belridge, Kern Co.	36-27-20	5,671	P.B. 5,461
Belridge Oil Co., No. 32-35 North Belridge, Kern Co.	35-27-20	....	rigged up
Amerada Pet., No. 2 Blackwells Corner, Kern Co.	17-26-19	2,155	will abdn.
Standard Oil Co., No. 1 Delano, Kern Co.	1-25-23	2,455	gas, shut in
Trico Oil & Gas Co., No. 1 Alpaugh, Kern Co.	3-25-23	2,525	gas well
Trico Oil & Gas Co., No. 3 Alpaugh, Kern Co.	36-24-22	2,610	gr. sh. drlg.
Signal Oil & Gas Co., No. 1 McVan, Kern Co.	10-27-27	....	grade
Buckeye Union Oil Co., No. 2 McVan, Kern Co.	10-27-27	1,351	P.B. 1,295
Macmillan Pet. Co., No. 1 McVan, Kern Co.	2-27-27	....	bldg. rig
Golden Bear Oil Co., No. 1 Kern Front, Kern Co.	32-27-27	2,397	sd. sh. drlg.
Hancock Oil Co., No. 4 Mountain View, Kern Co.	14-30-28	5,327	cmtd. 5,250
Association Oil Co., No. 1 Mountain View, Kern Co.	3-31-29	5,501	cleaning out
Star Pet. Corp., No. 1 Mountain View, Kern Co.	10-30-28	5,050	suspended
Shell Oil Co., No. 1 Mountain View, Kern Co.	32-30-29	2,491	sd. sh. drlg.
Union Oil Co., No. 5 Mountain View, Kern Co.	15-30-28	5,474	to whipstock
Union Oil Co., No. 6 Mountain View, Kern Co.	9-30-28	5,650	gr. sd. drlg.
Union Oil Co., No. 7 Mountain View, Kern Co.	23-30-28	5,610	flow. 6,475 b.d.
General Petroleum, No. 3 Mountain View, Kern Co.	14-30-28	4,000	sd. sh. drlg.
The Texas Co., No. 4 Mountain View, Kern Co.	14-30-28	5,526	redrlg. 5,148
The Texas Co., No. 5 Mountain View, Kern Co.	14-30-28	4,571	sd. sh. drlg.
Barnsdall, No. 3 Mountain View Deep, Kern Co.	31-30-29	7,880	sd. sh. drlg.
Hogan Pet., No. 6 Mountain View, Kern Co.	4-31-29	5,581	sd. sh. drlg.
Hogan Pet., No. 7 Mountain View, Kern Co.	29-30-29	3,090	sd. sh. drlg.
Jergins Trust, No. 5 Mountain View, Kern Co.	24-30-28	1,261	sd. sh. drlg.
Standard Oil Co., No. 5 Mountain View, Kern Co.	24-30-28	5,171	sd. sh. drlg.
Standard Oil Co., No. 6 Mountain View, Kern Co.	23-30-28	5,372	O.S. cmtd.
Hoyt, Otis, No. 2 Mountain View, Kern Co.	24-30-28	5,755	redrlg. 5,690
Ohio Oil Co., No. 1 Mountain View, Kern Co.	33-30-29	5,999	P.B. 5,736
Mountain View Oil Co., No. 1 Mountain View, Kern Co.	25-30-28	5,276	sd. sh. drlg.
Gilmore Oil Co., No. 1 Edison, Kern Co.	23-30-29	....	rig, suspended
Jergins Trust, No. 5 Edison, Kern Co.	24-30-29	....	rig, suspended
Jergins Trust, No. 6 Edison, Kern Co.	13-30-29	1,071	sd. sh. drlg.
Jergins Trust, No. 7 Edison, Kern Co.	14-30-29	990	sd. sh. drlg.
Consd. Crude Oil Co., No. 1 Edison, Kern Co.	17-30-29	5,567	P.B. 5,514
Ohio Oil Co., No. 1 Edison, Kern Co.	36-30-29	1,400	dry, abd.
Shell Oil Co., No. 4 Edison, Kern Co.	15-30-29	3,776	swabbing
Shell Oil Co., No. 5 Edison, Kern Co.	21-30-29	3,128	swabbing
Shell Oil Co., No. 6 Edison, Kern Co.	14-30-29	....	rigging up
Monterey Expl. Co., No. 6 Edison, Kern Co.	15-30-29	3,538	run liner
Monterey Expl. Co., No. 7 Edison, Kern Co.	15-30-29	3,268	P.B. 3,170
Chaulk Oil Co., No. 1 Edison, Kern Co.	5-30-29	1,051	sd. sh. drlg.
H. & B. Oil Co., No. 1 Edison, Kern Co.	6-30-30	980	sd. sh. drlg.
Seeple Oil Co., No. 1 Edison, Kern Co.	4-30-29	....	rigging up
The Texas Co., No. 1 Edison, Kern Co.	4-30-29	3,877	P.B. 3,517
Mohawk Oil Co., No. 1 Edison, Kern Co.	3-30-29	....	rigging up
Foster, Inc., No. 1 Edison, Kern Co.	8-30-29	4,871	sd. sh. drlg.
Ethel D. Oil Co., No. 1 Edison, Kern Co.	25-30-29	....	rigging
General Pet., No. 3 Edison, Kern Co.	24-30-29	1,675	schist
General Pet., No. 4 Edison, Kern Co.	14-30-29	....	rig, suspended
Petroleum Drilling Co., No. 1 Edison, Kern Co.	22-29-29	609	suspended
Signal Oil & Gas Co., No. 1 Edison, Kern Co.	31-29-30	2,258	suspended
Signal Oil & Gas Co., No. 2 Edison, Kern Co.	5-30-30	....	material
Signal Oil & Gas Co., No. 3 Edison, Kern Co.	36-29-29	193	Port. outfit
Caravel Pet., No. 1 Sivert, Kern Co.	19-30-30	1,590	suspended
Sea Cliff Oil Co., No. 1 Greenfield, Kern Co.	7-31-28	3,681	sd. sh. drlg.
Standard Oil Co., No. 1 Semi-Tropic, Kern Co.	8-27-23	3,193	rigging up
Seeple, J. C., No. 1 Elk Hills, Kern Co.	5-30-24	3,731	suspended
Richfield Oil Co., No. 2 Devil's Den, Kern Co.	14-25-18	2,400	sd. sh. drlg.
The Texas Co., No. 1 Tembior, Kern Co.	29-29-21	4,100	br. sh. drlg.
Shell Oil Co., No. 1 Buena Vista, Kern Co.	9-32-25	4,703	reaming
Reserve Oil & Gas Co., No. 1 Tejon, Kern Co.	2-10-19	3,291	gr. sh. drlg.
Badger Oil Co., No. 1 Tejon, Kern Co.	31-11-19	6,248	P.B. 3,600
Russ Oil Synd., No. 1 Dos Palos, Fresno Co.	28-12-11	5,110	rebldg. rig
Wellington Oil Co., No. 1 Coalinga, Fresno Co.	14-20-14	451	sd. sh. drlg.
Union Oil Co., No. 1 Lillis-Kettleman, Fresno Co.	24-21-16	10,944	rigging up
K.N.D.A., No. 56 Kettleman, Kings Co.	8-22-16	10,154	redrlg. 9,683
Standard, No. 2 Kettleman Middle, Kings Co.	29-23-19	3,550	sd. sh. drlg.
Continental Oil Co., No. 1 Kettleman-South, Kern Co.	7-23-19	3,521	hd. sh. drlg.
Farrel Pet., well No. 1, San Luis Obispo Co.	18-31-12	1,432	hd. sh. drlg.
Willett Oil Co., No. 1 Cholame, San Luis Obispo Co.	10-25-15	3,660	cmtd.
Commonwealth Consd. Gas Co., No. 1 Tulare Lake, Kings	21-22-20	2,490	gas well
Commonwealth Consd. Gas Co., No. 2 Tulare Lake, Kings	21-22-20	-....	rig, rained out
General Pet., No. 1 Devil's Den, Kings Co.	20-24-18	499	sd. sh. drlg.
Buttes Oilfields Co., No. 2 Marysville, Sutter Co.	35-16- 1	7,013	to set pipe
Amerada Pet., No. 1 F. L. D., San Joaquin Co.	15- 2- 5	....	material
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-10-14	8,402	P.B. 8,085
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24- 3	2,850	gr. sd. drlg.
The Texas Co., No. 1 Petrolia, Humboldt Co.	1- 5- 2	4,700	sd. sh. drlg.

Kanawha County Oriskany Test Disappointing; Eleven Completions in Lower Eastern Fields

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Mar. 11.—Another Oriskany test in Elk district, Kanawha County, West Virginia, has proved to be a disappointment. On the island at the junction of Coopers Creek and the Elk River, known as the Matheney, Wertz and others lease, V. C. Smith and others drilled through the Oriskany sand and there was no showing of oil or gas. The top of the Oriskany sand was at 4,756 feet and the elevation of the derrick floor was 589.45 feet above sea level. This, together with the failure on the W. T. Copen heirs farm, both situated north of the producer on the W. L. Burdette farm, appears to condemn additional tests drilling along that line.

The next test that may reach the Oriskany sand is that of the Clyde Oil & Gas Co. on the F. W. Shinn farm which is north and east of the Burdette producer and interest is centered in this test. At present drilling is again shut down fishing for the tools at a depth of 3,782 feet. Here the elevation of the derrick floor is 628 feet. In this district, on the W. T. and J. H. Goshorn farm, the Yoak Oil & Gas Co. is drilling at 1,900 feet. Benedum & Trees are down 1,900 feet on the Mary C. Wingfield farm. In Jefferson district these operators have reached 570 feet on the Joseph Hill farm.

In Malden district, Kanawha County, on Little Spring Fork of Campbells Creek, Godfrey L. Cabot, Inc., completed No. 8 on the Campbells Creek Coal Co. tract in the Oriskany sand at a total depth of 4,831 feet. After the top of the Oriskany sand was found productive of gas at 4,803 feet the test was shut in and casing run and the hole cemented. The cement shut off the pay streak and after drilling deeper the sand was shot with 10 quarts with a resulting volume of about 2,000,000 feet of gas a day. The elevation of the derrick floor is 955.56 feet. Originally in the top of the Oriskany sand, the well had a volume of about 750,000 feet a day, natural, which increased to a little over 1,000,000 feet a day with a showing of oil.

Eleven wells were completed in the lower eastern fields during the week of which seven were gas wells and four producers with an initial production of only 44 bbls. There were also seven dry holes.

SOUTHEAST OHIO

Two producers, two gas wells and two dry holes were reported in Southeast Ohio during the week. The largest well was No. 4 of the Ohio Producing & Refining Co. on the Joseph and Retta Gadd farm in Section 5, Wheeling Township, Guernsey County. It was drilled in the Niagara Lime at a depth of 3,695 feet and produced 35 bbls. the first day, natural.

In Knox County, Upham Gas Co. drilled a test on the Milan Mizer farm, Lot 22, Butler Township, through the Clinton sand and it was dry.

In Perry County, Wiser Oil Co. completed a test on the D. L. King farm in the southeast part of Section 35, Thorn Township, in the Clinton sand at a depth of 2,990 feet. It is a gas well gauging about 140,000 feet a day. In NW Section 33, Pleasant Township, Allegheny Oil Co. completed No. 28 on the Thomas and Mary Monahan farm in the Berea sand at a depth of 1,060 feet. It produced 3 bbls. the first day after shot.

In Washington County, Harry Binegar and others completed No. 4 on the L. C. Moore farm on Haught Run in Section 25, Ludlow Township, in the Berea sand at 1,967 feet, showing for a light gas well. On Whipple Run, Lot 168, Fearing Township, Charles Wirth and others drilled No. 5 on the Jacob Morningstar farm through the First Cow Run sand to 685 feet. It was dry.

SOUTHWEST PENNSYLVANIA

One gas well and one dry hole was the total of completed work in Southwest Pennsylvania. In Amwell Township, Washington County, Carnegie Natural Gas Co. completed a test on the R. M. Carrons farm at a total depth of 2,981 feet, the Thirty-Foot sand. The sand extended from 2,887 feet to 2,916 feet with gas showing at 2,891, 2,896, 2,902, and 2,912 feet and having a volume of 184,000 feet a day.

In the same township, about 1½ miles west of Lone Pine the same company drilled deeper No. 1 on the F. I. Moninger farm from 2,583 feet through the Fifth sand to 3,052 feet. It was dry and is being plugged. Its test on the M. Monon farm has reached 2,827 feet, the Fifth sand, and is expected to be completed this week. Union Gasoline & Oil Corp. is drilling at 1,700 feet on the Ella S. and A. L. Johns farm.

In East Findley Township, Washington County, the Natural Gas Co. of West Virginia is down 880 feet on the P. I. Ealy farm. Work is progressing at the rig for the company's test on the T. C. Noble farm.

In Cecil Township, Washington County, William Smith and others have a rig on the Mrs. M. Winters farm. Also in this Township, Paul Clay & Co. have a rig on the Mrs. W. J. Johnston farm.

In West Bethlehem Township, Washington County, Furman Nuss & Co. are drilling at 620 feet on the Margaret Keys farm. In Morris Township, same county, James McCracken & Co. have shut down at 3,100 feet on the H. B. Saunders farm for rig repairs.

In Greene County Carnegie Natural Gas Co. is drilling at 3,002 feet in deepening No. 2 on the George W. Gordon farm in Whiteley Township. The Pittsburgh Coal was at 814 feet. In Richhill Township, Lewis & Co. have resumed drilling on the Samuel C. Chess farm and have reached 650 feet. In Morris Township, Union Gasoline & Oil Co. is down 2,743 feet in deepening No. 1 on the Samuel Price farm.

WEST VIRGINIA

Two small producers were completed in West Virginia. In Calhoun County, W. Bickerstaff and others completed deepening No. 5 on the William Cooper farm through the Injun sand to a depth of 2,430 feet. It was dry in the Injun sand and was returned to the Salt sand as a 2-bbl. pumper. It is in Sheridan district.

In Doddridge County, D. Foley and others completed No. 3 on the Mary J. Minear farm on the headwaters of Arnold Creek in Central district in the Big Lime. It is showing for 4 bbls. a day and will be shot with acid in the near future.

Gas Wells

In Cabell County Brown Gas Co. completed a fair second test on the Floyd L. Bias farm in McComas district in the Salt sand at a depth of 1,425 feet. It has a volume of over 1,250,000 feet a day.

In Pleasants County Ward and others drilled No. 20 on the George Varner farm in McKim district through the Injun sand to a total depth of 1,994 feet. It was dry.

In Ritchie County, Devil Hole Oil & Gas Co. has a fair well in No. 2 on the Rutherford heirs (Ritchie Lumber Co.) on the waters of Devil Hole in Grant district. It was drilled in the Injun sand to 1,910 feet and has a volume of 750,000 feet a day. Two miles west of Petroleum in this district, Clarvin Oil Co. drilled No. 2 on the W. M. Marbury 900-acre farm through the Berea sand and it was dry.

In Wirt County, Glenn Roberts completed a test on the Withers and Vandevender farm in Burning Springs district in the Salt sand and it is a light gas well. In Wood County, C. S. Reed & Co. drilled a test on the Ima Dell Reed farm in Williams district through the Cow Run sand and it was dry.

Drilling in West Virginia

In Calhoun County, Ivy Gainer has started drilling on his own property in Center district. In Sherman district, Dudley Lutz and others have completed the rig on the Elias Yoak farm. C. B. Lewis and others have reached 680 feet on the M. J. Kight farm. Boyce Fowler and others are drilling at 940 feet on the Lowman Fowler farm, a test. Starcher & Richards have locations on the Albert Kight farms of 28 and 54 acres. A. Rothwell is down 2,125 feet on the J. H. Sturms farm.

In Gilmer County, Steer Creek Oil & Gas Co. is drilling at 820 feet on the C. D. Mollahan farm in Center district, No. 8. A. E. Ellis and others have a location on the C. C. Pickens farm in DeKalb district.

In Kanawha County, Godfrey L. Cabot, Inc., is drilling two wells on the Arabella D. Huntington lease in Cabin Creek district. No. 51 has reached 1,900 feet and No. 52 is down 2,860 feet. Roads are being made to locations No. 49 and 50 on the same lease.

In Clay County, F. F. McIntosh is drilling at 675 feet in the second test on the Peabody Coal Co. lease in Pleasant district. In Otter district, Benedum & Trees are down 1,650 feet on the L. E. Rogers farm.

In Marshall County, on Little Grave Creek in Washington district, Hazlett Brothers and Wasmuth have started drilling on the Ella McCarthy farm. In Marion County, Monroe & Laughlin are down 2,865 feet in No. 3 on the A. D. Wells farm in Mannington district.

In Pleasants County, J. C. Hinds and others have started drilling on the J. N. Hinds farm in Jefferson district. In Raleigh County, Godfrey L. Cabot, Inc., is down 2,365 and 2,484 feet in Nos. 6 and 7 on the Beaver Coal Co. tract in Slab Fork district.

In Ritchie County, Joseph Elder and others are drilling on the Isaac Jackson farm in Grant district. In this district Ralph Jackson has a rig on the S. and E. L. Tennant farm, Russell Morris and others are shut down at 1,100 feet on

Bureau of Mines Report on Petroleum and Petroleum Products for January

Crude oil production for January, 1935, totaled 78,715,000 bbls., a daily average of 2,539,200 bbls.; compared with the average in December, this represents an increase of about 120,000 bbls. This gain reflects mainly the increase of 153,300 bbls. in the federal allowable effective December 17; however, the total (2,539,200 bbls.) was 78,900 bbls. above the allowable. The majority of the states recorded increases in production in January, the largest being in Texas. The daily average output in Texas in January was 1,031,300 bbls., or about 50,000 bbls. above the average in December. About 30,000 bbls. of this increase was recorded in the East Texas Field. The estimated total initial of the completions in the East Texas Field for the month was 528,000 bbls.; this was higher than it was a year ago, but there were only 142 wells drilling on January 31, 1935, as compared with 232 a year ago. Production in Louisiana continued to increase as the result of intensified operations in the coastal fields. The output at Oklahoma City was lower, but this was more than balanced by gains elsewhere in the state.

Daily average crude runs to stills declined 37,000 bbls. below December, this decrease, combined with the gain in output, resulted in a gain in crude oil stocks as compared with the usual decline. Crude oil stocks totaled 338,174,000 bbls. on January 31, compared with the revised total of 337,254,000 bbls. for December 31, 1934.

Refined Products

The percentage yield of gasoline increased slightly in January but not enough to counterbalance the decline in crude runs, hence the output of motor fuel showed a slight decrease. The domestic demand for motor fuel in January was 28,062,000 bbls., a daily average of 905,000 bbls.; compared with January, 1934, this indicates a decline of 5 per cent, but it should be noted that the figure for a year ago was about 2,000,000 bbls. more than was anticipated. In other words, the actual consumption for January, 1935. was probably about 2 per cent higher than it was in January, 1934. Stocks of finished gasoline increased 5,735,000 bbls. and unfinished gasoline stocks increased 325,000 bbls., a total gain for January of 6,060,000 bbls. This was 890,000 bbls. in excess of the total recommended in the allocations.

Outstanding among the developments of January, 1935, was the continued heavy withdrawal from fuel oil stocks. The trends of these declines indicate that increasingly heavier withdrawals have been made from gas oil and distillates in contrast to the withdrawals from residual fuel oil stocks, and that the withdrawals east of California have been getting heavier but those in California are becoming lighter.

According to the Bureau of Labor Statistics, the price index for petroleum products for January, 1935, was 48.8, compared with 49.8 in December, 1934, and 51.1 in January, 1934.

The refinery data of this report were compiled from refineries with an aggregate daily recorded crude oil capacity of 3,541,000 bbls. These refineries operated during January, 1935, at 69 per cent of their capacity, given above, compared with a ratio of 70 per cent in December, 1934.

the A. C. Scaddon farm. In Murphy district, William Morris and others are drilling at 840 feet on the Nellie Snyder farm. C. S. Morris reached 1,800 feet on the W. E. Cox farm, a test, and shut down. This operator is down 700 feet on the H. B. Ayers farm. Shannon Dawson is drilling on the E. C. Dawson farm at 500 feet. Patton Farm Oil Co. is drilling No. 7 on the Patton and Wilson lease. W. H. Bickle has a rig on the Harry Miller farm. In Clay district, Lucas and Mahaney are drilling at 500 feet in No. 5 on the Laura and J. H. Kelly farm. Gainer and others are down 1,817 feet on the Fred Lambert farm.

In Roane County, Clyde W. Campbell has made a location on the Marcellus Hart farm in Curtis district. K. M. Hunt and others have a location for a second test on the Lizzie Moore heirs farm. Henderson Oil Co. is spudding on the E. S. Ball farm. K. M. Hunt and others are drilling at 1,400 feet on the T. J. Murray farm. In Smithfield district, Big Four Drilling Co. has reached 1,280 feet on the Frank Wallbrown farm.

In Wetzel County, Magic Oil & Gas Co. has a rig on the F. T. and L. V. West farm in Proctor district. C. B. Lewis and others are drilling at 1,800 feet on the Nicholas Blatt farm and are building a rig on the S. O. Adams farm.

Cat Aids Drillers on Wildcat Leases

The cat shown in the picture really became a "wildcat" and visited a wildcat test being drilled by the Owens-Snebold and F.H.E. Oil companies in Shackelford County, Texas. J. L. Hart, the drilling

contractor on the wells, tamed the domestic "wildcat," and at the same time drilled in a good well.

The cat is now a privileged character around the wells and has a "custom" built home, shown in the picture, erected by the drilling crew. He is no common cat now, but has his definite place in the development of the leases. The cat would not stay around one of the tests when it was being drilled, for some unexplainable reason, and that test proved a dry hole. Consequently the owners and crew are staunch believers in the cat's prophetic powers. The cat has been named "Sophie," using the first letters of Snebold, Owens and F.H.E. Oil Co.

OIL-FROM-COAL RESEARCH

OTTAWA, Canada, Mar. 9.—W. A. Gordon, federal minister of mines, stated in parliament that preliminary researches had been made by the federal mines department laboratories into the extraction of fuel oil and gasoline from Canadian coal. Results of tests in England were made available to the Canadian government, which did not believe it wise to spend too much money on research in Canada.

Nine Completions in Central Ohio Field; Six Reported From Kentucky Area

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Mar. 11.—The old Lima Field reported one completion, the Kenton Oil & Gas Co.'s No. 2 William J. McMahon's farm, Section 17, Pleasants Township, which came in a gas well at 1,323 feet. Bert Sheldon has a rig for No. 2 Ora E. Rush farm, Section 31, Blanchard Township, same county. In Wyandot County, Wood and others are shut down at 1,100 feet in No. 5 on the Edward Orton farm, Section 22, Pitt Township. Bosse Brothers are shut down at 1,277 feet in No. 1 Adam Gamber farm, Section 33, Salem Township, same county.

R. C. Jones' No. 1 on the Henry King farm, Section 31, Liberty Township, Seneca County, in the Tiffin Field, had small showings of both oil and gas and Mr. Jones is going to treat the well with acid.

Allen County reports four wells under way, Ohio Oil Co.'s No. 8 George W. Tabler farm, Section 9, Perry Township; H. C. Miller & Co.'s No. 1 Arthur B. Moorman farm, Section 35, Spencer Township; L. J. Pease and L. J. Pease, trustee's No. 5 Nancy E. Leedy farm, Section 14, Bath Township, same county, and W. R. Mayers Brothers' No. 1 Laura & Ivor Watkins farm, in Marion Township.

In Van Wert County four wells are under way hunting the gas recently reported found in the county. Elmer E. Caudill and others are drilling No. 4 Mary B. Sheets farm, Section 30, Jackson Township, and Hystanton Oil & Gas Co. is drilling No. 3 J. A. Reed farm, same section. Mid-Continent Oil & Gas Co. is drilling No. 2 on the Frank Brenneman farm, Section 1, Sugar Creek Township, and H. C. Miller is drilling No. 4 James B. Davis farm, Section 5, Jennings Township.

In Darke County, A. A. Lauber is drilling No. 1 J. W. Lange farm, Section 26, Butler Township, and Petro Producing Corp. is drilling No. 2 on the C. S. and Vesta Lemoyn farm, Section 35, same township.

In Auglaize County, Wayne Jones is drilling No. 2 A. and M. Rohrbach farm, Section 2, Salem Township. N. E. Master is drilling No. 1 J. W. Wisner farm, Section 35, Hoagland Township, and N. E. Master and others are drilling No. 1 George Ruble farm, Section 11, Noble Township. C. Wentzer is drilling No. 1 on his own farm, Section 28, Douchoquet Township.

CENTRAL OHIO

Nine completions were reported from the Central Ohio Field, five gas wells and four dry. In Lorain County, Ohio Fuel Gas Co.'s No. 1 J. C. Diedrick farm, Lot 13, Carlisle Township, was a gas well. J. W. Cushing has a rig for No. 1 on the Hanshaw Chemical lands, in Lot 6, Elyria Township. R. E. Gains is drilling No. 1 Isabel Gain farm, Lot 86, Russia Township, same county.

In Cuyahoga County, J. W. Cushing's No. 2 W. F. Prechtel farm, Section 31, Olmstead Township, was dry. Ferro Enamel Co. is drilling No. 1 fee land, in Lot 308, Newberg Township.

In Wayne County, Ohio Salt Co. found a dry hole on the company's property, in Section 12, Milton Township. Same company is reported at 3,125 feet, on fee land, Section 12, Chippewa Township.

In Fairfield County, City Natural Gas Works' No. 1 Otto M. Cinder farm, Section 1, Greenfield Township, came in dry at 2,101 feet. Same company has a location on the Daniel Steiger farm, same section. In Berne Township, same county, the same company is drilling No. 2 Webster Deeds farm, Section 34, and No. 1 M. E. Bowman farm, Section 34. Same company has a rig up for No. 4 Charles Fauble farm, Section 2, same township, and a rig up for No. 1 Mertz-Moyer farm, Section 14, Pleasants Township.

In Licking County, Armbruster & Strickers' No. 7 Homer L. Jones farm, is a gas well at 722 feet. Long Producing Co. has a rig up for No. 2 William Varner farm, Section 14, Fallsburg Township, and Utica Oil & Gas Co. has a rig up for No. 3 Glen A. Shipley farm, Section 13, Bennington Township.

In Coshocton County, Preston Oil Co. has a location for No. 1-1,675 on Robert Giffin farm, and rigs in for No. 1-672 and No. 1-674 in Newcastle Township.

In Knox County, Upham Gas Co. is drilling No. 2 E. H. Mickley farm, Lot 40, Union Township; No. 1 on the William Kaylor farm, Section 9, Jefferson Township, and No. 1 John McNabb farm, Lot 20, Butler Township. Long Producing Co. has a rig in for No. 2 on the M. Varner farm, Section 14, Fallsburg Township.

Starke County

In Starke County, East Ohio Gas Co.'s No. 1 Dan and Mary Broucher farm, is a gas well at 4,313 feet, in Section 10, Jackson Township. Same company's No. 2 L. and L. Roush farm, Section 18, Plain Township, is a gas well at 680 feet.

In Meigs County, Ohio Fuel Gas Co. is drilling No. 1 E. E. Brewer farm, Section 20, Lebanon Township. Joe Rubin and others are drilling No. 5 Elias Jurden farm, Section 36, same township.

In Lawrence County, Shale Development Co. made a location on the William P. Booth farm, Section 21, Union Township. In Rome Township, same county, Frick and others are drilling on the William Murdock farm, Section 33, Rome Township, and C. C. Wolfe and others are drilling No. 1 Edward Miller farm, Section 28, same township.

In Gallia County, Barton & Utsinger are drilling on the W. T. and Ella Miller farm, Section 24, Huntington Township.

In Perry County, Mid-East Gas Co. is drilling No. 3 Edward Noll farm, Section 24, Reading Township. In Thorn Township, Ohio Fuel Gas Co. has a rig in for No. 1 A. G. Winegardner farm, Section 25, and Wehrle Brothers are drilling No. 1 Ray Helser farm, Section 36.

In Tuscarawas County, James Upham is drilling No. 1 Alfred C. Ohlers farm, Section 4, Fairfield Township, and Status Development Co. is drilling on the Fairfield Brick Co.'s tract. In Trumbull County, Kime and others' have a rig in for No. 1 on the Lawrence Booth farm, Section 24, Vienna Township.

KENTUCKY

Six completions were reported from the Kentucky Field. In Ohio County, Snowden-McSweeney Co.'s No. 11 H. J. O'Dell farm produced 120 bbls. initial.

Five completions were reported from Hancock County. James C. Ellis' No. 11 Smith heirs farm, produced 100 bbls. initial and No. 6 on the same farm, produced an initial of 75 bbls. Same operator drilled in No. 4 H. J. Fuqua farm, with an initial of 45 bbls. Chester Oil Co.'s No. 7 Ira Fuqua farm, had an initial of 50 bbls., and Mecca Oil Co.'s No. 2 Harland Smith farm, was a gas well in the Jackson sand formation.

INDIANA

Glengarry Oil Co.'s No. 1 O. W. Evans farm, Section 11, Busseron Township, Knox County, was a gas well at 625 feet. Mead Oil Co. is drilling No. 1 N. A. Hall farm, Section 14, same township.

SAN ANTONIO GEOLOGISTS

Joseph M. Dawson, chief geologist for the Gulf Production Co. in Southwest Texas, has been elected president of the San Antonio Geological Society, succeeding T. J. Galbraith, geologist for the California Co., also of San Antonio. Other officers elected were Phillip S. Schoenick of the Atlantic Oil Producing Co. of Laredo, as vice president; Adolph Dovre of the Tide Water Oil Co., San Antonio, secretary-treasurer, and Iro O. Brown of the Marathon Oil Co. of San Antonio, a member of the executive committee.

Plan Mineral Resources Survey for Colorado

By TOLBERT R. INGRAM

DENVER, Colo., Mar. 9.—A project calling for an investigation of the mineral resources of Colorado, which is unique as to the size, scope and completeness of the survey, has been proposed to the Public Works Administration by a temporary committee representing the educational institutions and the mining and Geological engineering professions of the State. It has been approved by the Colorado State Planning Commission and will be submitted to Administrator Harold Ickes through the office of George M. Bull, state engineer for the administration.

The project calls for an expenditure of $2,500,000 over a period of two years, will cover an area of 40,000 square miles and give employment to 350 persons for that period. Approximately half of the persons employed will be geologists and engineers trained and experienced in this type of work. The committee proposed that the survey be supervised and directed by the U. S. Geological Survey and that the personnel as far as possible be drawn from the State of Colorado.

The survey will give a comprehensive idea of the value and reserves in the State of such materials as surface and underground water, road materials, building stones, fuel, helium and carbon dioxide, limestones, clays, gypsum, cement materials, strategic and critical minerals such as gold, silver, copper, lead, zinc, manganese, iron, tungsten, molybdenum, nickel, tin, vanadium, uranium, radium, beryllium, fluorspar, potash, halite and sulphur. The data collected will be gathered into a central bureau of information and the budget provides $200,000 for the publication of reports.

Geologists in Charge

The plan calls for the division of the State into seven districts comprising the north front mountain range, the south front range and the Salida area, southeastern Colorado, the intermountain parks, the Paradox Valley, the South San Juan Mountains and the western slope. Each district will be divided into units of sufficient size calculated to keep one field party at work in each for a period of two years, each party to be in charge of an experienced geologist. The central office, which will be in Denver, will include the executive staff and laboratories and will employ approximately 40 people. The total number of men employed in the field work in the seven districts, including district supervisors, will range from 104 to 134.

The detail mineral surveys proposed are chosen with the purpose of providing the groundwork for a permanent policy of geologic studies leading to the most efficient exploration for the development of Colorado's natural resources.

The temporary committee, which is composed of the outstanding members of the education and mining and engineering profession in the State, is composed of the following: Dean E. Winchester, geologist, chairman; A. E. Brainard, W. S. Burbank, C. E. Dobbin, C. W. Henderson, W. P. Huleatt, S. A. Ionides, J. H. Johnson, B. H. Parker, H. A. Stewart, W. A. Waldschmidt, D. Wantland, F. M. Van Tuyl, head of the geological department of the State School of Mines; P. G. Worcester, head geological department, University of Colorado; Dr. M. F. Coolbaugh, president, Colorado School of Mines, and members of the Colorado Geological Survey board.

Potential Production of 57 Deep Sand Wells in Fitts Pool Exceeds 3,500 Barrels Per Well

By JAMES McINTYRE

With 63 completions in the Fitts Pool in Pontotoc County, 57 of them Bromide sand wells averaging about 3,500 bbls. per well in potential production that pool has reached a place where it must be regarded as one of the largest potential producers of oil in the country. In taking potentials in the Fitts Pool wells are tested two hours through casing and then four hours through tubing and only the tubing production is counted. The four hours' production is multiplied by six to get the potential. Potentials have been taken on 52 wells, the total having been 185,749 bbls. A few wells completed in the past week had not yet taken potentials but their initial production shows they are up to the standard of the wells already tested. There are 59 operations under way in the field including drilling wells, rigs and locations.

Estimated Production

Estimated production by pools in Oklahoma for the week ended March 9 and for the preceding week follows:

	Barrels	
	Mar. 9	Mar. 2
Allen	8,575	8,625
Asher-West Asher	1,425	1,400
Burbank	8,500	8,500
South Burbank	10,000	10,000
Balance of Osage	27,500	27,500
Blackwell	4,700	4,700
Bristow-Slick	9,500	9,500
Chandler	5,750	5,750
Crescent	3,775	4,575
Cromwell	4,300	4,250
Cushing-Shamrock	13,000	12,750
Duncan district	4,300	4,250
Edmond	1,200	1,200
Fish	8,200	8,200
Fitts	6,200	11,525
Gray	1,275	1,475
Graham	3,650	3,650
Healdton	9,000	9,000
Hewitt	4,800	4,800
Holdenville	1,950	1,775
Keokuk	1,775	950
Konawa	2,250	2,475
Lucien	7,450	8,375
Marshall-Lovell	850	850
Oklahoma City	136,450	127,750
Papoose	1,300	1,300
Polo	2,275	3,325
Sasakwa and townsite	2,250	2,225
Sholem-Alechem	4,000	4,000
Seminole Field:		
Bowlegs	10,975	10,725
Carr City	4,375	5,225
Earlsboro	8,375	8,800
East Earlsboro	7,225	7,850
South Earlsboro	1,025	900
Little River	11,325	11,725
East Little River	950	1,000
Maud	1,600	1,450
Mission	3,675	3,750
Seminole	9,350	9,375
East Seminole	1,150	1,275
Searight	3,425	3,850
Total Seminole	63,450	65,925
St. Louis-Pearson	22,125	20,375
Tatums	5,600	5,600
Tonkawa-Garber-Thomas	6,000	6,000
Wewoka	3,800	3,800
Yale-Jennings	4,800	4,750
Other pools	55,675	55,800
Total Oklahoma	457,650	457,825

New Town Lot Development

Two locations have been made in the recently opened city extension to the Oklahoma City Field. The voters of the city decided to permit oil operators to develop a large section of the exclusive residential section in the northeastern part of town regardless of the fire and explosion hazards to the home owners of that section, and the first to enter are Phillips Petroleum Co. with its No. 1 Durland, on Block 9, Durland addition, in SW SE SE NE Section 34-12-3w, and Champlin Refining Co. with No. 1 Oak Park, on Block 33 of the Oak Park addition, NW NW SW NW Section 35-12-3w. Ten other locations are expected to be made very soon to protect the south line of the new extension.

50,000,000-Foot Gasser

Ed Cox and Jake Hamon, Jr., found a 50,000,000-foot gas production in their No. 1 fee, SW SE NE Section 17-2s-2w, in the Wildcat Jim area in Carter County in a sand at 1,380-1,400 feet. The gas blew wild on Friday and a part of Saturday. The owners are after oil and plan to drill deeper. Skelly Oil Co. recently completed an oil well which started off at 180 bbls. in 12 hours, in NE SE NW Section 17, in a sand series at 1,400 to 2,580 feet.

Leasers Active

Leasers are active in Custer County in western Oklahoma, Kay County in the north end of the State, Love County in the extreme south end and in Johnston, Garvin, Oklahoma, Canadian, Murray and Beckham Counties. In the latter county the Champlin Refining Co., Magnolia Petroleum Co., Norbla Oil Co. and H. F. Potts have gathered in the most of the recently acquired leases in Townships 7-25w, 7-26w, 8-25w and 8-26w.

The Altus Field in Jackson County, southwestern Oklahoma, must soon prove whether it is a real oil region or a dud. McCarty & Eggem's No. 1, SE SE SW Section 34-2n-20w, was abandoned as dry at 1,904 feet after passing through the various formations known to be present in that area and finding them barren of oil. Scheig and others' No. 1 James, NE cor. Section 23-1n-20w, is a dry hole, abandoned at 1,904 feet.

Petroleum Producers and others' No. 1 Cole, SW SW SE Section 34-20-2w, pumped 25 bbls. a day from granite wash at 1,404-46 feet.

Black Gold Petroleum Co.'s test in Kingfisher County, No. 1 Cole, C SW NE Section 24-18-5w, has been abandoned as dry at 6,709 feet.

The Wilcox sand zone in the Fish Pool yielded another good one in the past week when Magnolia Petroleum Co.'s No. 6 Reed, SW SE SE Section 30-7-8, Seminole County, flowed 1,090 bbls. in 15 hours from Wilcox sand at 4,264 feet, penetrated only 18 inches. It was shut in preparatory to a potential test.

Wildcat Operations in Oklahoma

Week Ending March 9

NORTHERN OKLAHOMA

BECKHAM COUNTY

Fred Coogan et al's No. 1 Shelton, SW cor. Sec. 33-10-25w.
Drlg. 2,000 ft.

CADDO COUNTY

H. W. Lee et al's No. 1 Stacey Ferrell, SW NE NE Sec. 3-6-13w: (2,000-ft. test) Lowering 8-in. csg. 2,002 ft.; showing of oil at 1,960-2,003 ft.; S.D.

Denver Prod. & Ref. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w.
T.D. 11,230 ft.; C.O. to 10,000 ft.; flowing by heads 100 bbls. oil every other day.

CARTER COUNTY

Waco Turner's No. 1 Munson, NE NW NE Sec. 35-5s-2w.
Rig and tools.

CLEVELAND COUNTY

Sinclair Prairie et al's No. 1 Franklin, SE NW SE Sec. 21-10-2w.
Drlg. 3,856 ft.

COAL COUNTY

J. D. Petty Oil Co.'s No. 1 McMillan, SW NW NE Sec. 16-1s-8.
S.D. 1,110 ft.

H. F. Potts' No. 1 Nichols, C SW SW NW Sec. 32-2-9.
Drlg. 1,480 ft.

GARFIELD COUNTY

Herndon Drlg Co. et al's No. 1 Allen, NE NE SW Sec. 35-24-3w.
Drlg. 3,720 ft.

GARVIN COUNTY

Charles Carter and W. S. Key, Inc.'s No. 1 Wood, C NW SW SE Sec. 5-4-3e.
Set surface pipe.

National Prod. Co.'s No. 1 Littrell, NE NE NE Sec. 31-2-3w.
6⅝-in. csg. 1,244 ft.; drlg. 1,340 ft.

George L. Pace's No. 1 Smith, SW NE Sec. 35-1-1.
Spudded and S.D.

George Pace et al's No. 1 Smith, SW SW NE Sec. 35-1n-1e.
Moving in material.

GRADY COUNTY

Carter Oil Co. and Magnolia Pet. Co.'s No. 1 Harrison C-34, C NW NW Sec. 28-8-6w.
T.D. 5,963 ft.; cmt. plug placed at 5,200-5,450 ft.

GRANT COUNTY

Helmerich & Payne's No. 1 Crouse, C NE SW Sec. 29-25-5w.
T.D. 6,030 ft.; set 8-in. at 6,026 ft.; drlg. cmt. plug.

GREER COUNTY

Morgan et al's No. 1 Corder, C SW SE Sec. 19-4-22w.
Set 10-in. pipe at 60 ft.

HUGHES COUNTY

Amerada Pet. Corp.'s No. 1-A Adams, NE NE SW Sec. 31-9-9.
Hunton 4,028 ft.; drlg. 4,030 ft.

Dandridge & Crane's No. 1 Mead, NW NW NE Sec. 17-5-9.
Drlg. 1,285 ft.

Freeman et al's No. 1 Kite, NW NW NE Sec. 8-6-10.
Set 8-in. csg. 598 ft.

KAY COUNTY

Harris & Haun's No. 1 Schuessler, C NW SW Sec. 3-28-2.
Drlg. 2,715 ft.

Bay Oil Co.'s No. 1 Holden, SW SW SE Sec. 14-28-2.
8-in. 2,945 ft.; drlg. plugs.

KINGFISHER COUNTY

Black Gold Oil Co.'s No. 1 Cole, C SW NE Sec. 24-18-5w.
Dry and abd. 6,709 ft.

LINCOLN COUNTY

Carter Oil Co. et al's No. 1 McFarland C-38, SW SW NE Sec. 18-13-4.
Rig.

Chester L. Carlock's No. 1 Young, C N½ NW NW Sec. 23-15-5.
Rig.

Mid-Continent Pet. Corp. et al's No. 1 Nunn, SE SE NW Sec. 25-15-1.
Location.

Slick-Urschel, Inc.'s No. 1 Miller, NW NW SE Sec. 25-15-3.
Tonkawa sand 3,995 ft.; drlg. 4,870 ft.

Slick-Urschel's No. 1 Miller, NW SE Sec. 25-15-3.
Drlg. 4,640 ft.

LOGAN COUNTY

Shell Pet. Corp. et al's No. 1 Hirsel, SE SW SW Sec. 7-16-2w.
Viola 5,674 ft.; Simpson 5,842 ft.; Wilcox sands at 5,863 ft. and 5,942 ft.; S.D. 5,-972 ft.

Sinclair Prairie and Slick-Urschel's No. 1 Koatsch, SW cor. Sec. 23-15-3w.
Drlg. 4,870 ft.

Sinclair Prairie Oil Co. et al's No. 1 School Land, SE cor. Sec. 36-17-1w.
Simpson dense 5,255 ft., T.D.; flowed 293 bbls. in 24 hrs.; top sand at 5,285-90 ft., T.D.; H.F.W.; S.D.

Slick-Urschel et al's No. 1 Pennington, C SW NE Sec. 10-16-1w.
Drlg. 4,373 ft.

J. C. Schaffer et al's No. 1 Hammond, SE SE SW Sec. 10-15-4w.
Drlg. 3,615 ft.

LOVE COUNTY

Amerada Pet. Corp. and Stanolind O. & G. Co.'s No. 1 W. & D., NW SE SE Sec. 27-6s-2e.
T.D. 1,872 ft.; may skid rig for new hole.

Amerada and Stanolind's No. 1 W. & D., NW SE SE Sec. 27-6s-2e.
T.D. 1,872 ft.; crooked hole; may skid rig for new hole.

McCLAIN COUNTY

C. W. James et al's No. 1 Neal, C NW SE SW Sec. 4-5-3.
Hunton 3,325-37 ft.; running 8-in. csg.

NOBLE COUNTY

Marathon Oil Co.'s No. 1 Gilbert, NE cor. Sec. 24-22-2.
Wilcox sand 4,449 ft.; T.D. 4,480 ft.; flowed 1,793 bbls. in 7 days; may deepen.

OKFUSKEE COUNTY

Amerada Pet. Corp.'s No. 1 Jaynes, NW NW SW Sec. 20-10-10.
Hunton 3,690 ft.; 10,000,000 ft. of gas at 3,704 ft.; 7-in. csg. 3,749 ft.

Mid-Continent Pet. Corp.'s No. 1 Haney, SW SE NE Sec. 24-12-8.
Acidized Wilcox sand 4,125-34 ft.; gas broke in; spraying oil.

OKLAHOMA COUNTY

W. H. Atkinson et al's No. 1 Reed, NE cor. Sec. 4-12-3w.
Rigging up.

Anderson & Kerr et al's No. 1 Linn, SW NW Sec. 17-14-2w.
Drlg. 2,110 ft.

Gypsy Oil Co.'s No. 1 Shock, NW SW SW Sec. 2-14-3w.
Building rig.

R. Carl Larkin's No. 1 Brobine, NW NW NE Sec. 33-13-5w.
Rig and pits.

OSAGE COUNTY

Peters Pet. Co. and Norbla Oil Co.'s No. 1, SW cor. Sec. 15-25-5.
S.D. at 2,134 ft.

(Continued on Next Page)

Logan County

In the Crescent Pool, Logan County, Gypsy Oil Co. and Carter Oil Co.'s No. 3 Knowles, SW SW NW Section 34-17-4w, was shut down preparing for a potential test. It flowed 606 bbls. in 24 hours and 57 bbls. the following day. It has pay at 6,177-90 feet and 6,200-13 feet.

Mid-Continent Petroleum Corp. finally completed its gigantic initial producer, No. 3 Campbell in SE SE NE Section 33-17-4w, which in January flowed as high as 1,557 bbls. in three hours, or at the rate of 12,456 bbls. per day. This well had Wilcox sand at 6,080-95 feet and it made 1,650 bbls. of oil in six hours through 2-inch tubing and a three-quarters inch choke.

Helmerich & Payne and Gypsy Oil Co. have cellar dug for No. 1 Moss, SE SE SW Section 11-17-1w, Langston Pool, Logan County (correction). Anderson & Kerr and others have cellar dug for No. 1 Renfrow, a wildcat, NE NE NE Section 33-16-4w. Mid-Continent Petroleum Corp. has made a location for a wildcat test on a seismograph structure, SE SE NW Section 25-15-1e.

Kay County

Wentz Oil Corp. has a rig up for No. 4 Herman, C NW Section 8-28-1e, Kay County. J. T. Lindley made a location for No. 1 Waggoner, NW NW NE Section 3-27-1e. Argo Oil & Gas Co.'s No. 1-A Sutton, C NE SE Section 30-25-1w, was drilling at 2,045 feet.

Payne County

Marathon Oil Co.'s No. 1 Potts, C SW SW Section 27-19-2, Payne County, had been abandoned as a failure. It was a hole full of water at 5,116 feet, total depth, and was plugged back and shot in the Misener sand at 4,514-31 feet, but the Misener was barren of oil.

Noble County

Stanolind Oil & Gas Co.'s No. 2 De-Bord-B, NE NW SW Section 27-22-2w, Polo Pool, Noble County, flowed 772 bbls. in 14 hours from pay at 4,847-55 feet. This well had Simpson dense at 4,797 feet; Dolomite at 4,817 feet and sand at 4,840-55 feet, total depth.

Sinclair Prairie Oil Co.'s No. 3 Smith, SE NE NE Section 28-22-2w, was cleaning out at total depth of 4,935 feet and swabbed 140 bbls. in 24 hours. It had twice been shot at 4,907-27 feet and 4,-902-30 feet, and swabbed 125 bbls. in 24 hours, after the last shot.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Veitz, C NW SW Section 27-20-2w, had not yet been completed. It flowed 1,113 bbls. of oil in 13½ hours, with gas at the rate of 2,000,000 feet per day from pay at 5,094-96 feet. It has the top of the Dolomite at 5,010 feet and first sand at 5,073 feet, total depth 5,099 feet.

Sinclair Prairie Oil Co.'s No. 1 Kriethe, C SE NE Section 28-20-2w, had Dolomite at 5,090 feet with a small show of oil, got first sand at 5,155-5,210 feet, and a small showing of water at 5,180-85 feet. It was drilling at 5,248 feet with no increase in water.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Frederick, C SW SE Section 28-20-2w, filled 1,000 feet with oil in one hour at 4,944 feet and was drilling at 5,008 feet.

Shell Petroleum Corp.'s No. 1-A Tate, C NW NW 29-20-2w, had top of the

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Viola lime at 4,970 feet, and at 5,126 feet gas blew the tools 70 feet up the hole and the crew now has a job fishing for the tools.

Atlantic Oil Producing Co. and others made a location for No. 1 Porter, SE NW SW Section 22-22-2w, Polo Pool (correction). Harry Chapple made a location for No. 1 Ragon, NW SE NW Section 29-21-1w, in the Perry Field; (correction). Magnolia Petroleum Co. made a location for No. 1 Vietz, C SW SW Section 27-20-2w, Polo Pool; Stanolind Oil & Gas Co., Amerada Petroleum Corp. and others made a location for No. 2 Frederick, C NE SE Section 28-20-2w.

Osage County

In Osage County completions of the week included the following wells:

Frakes & Kennedy's No. 6, Okesa townsite, 10-bbl. pumper at 1,456-72 feet.

F. O. Akin's No. 1, SW SW NE Section 18-26-12, dry and abandoned at 872 feet.

Empire Oil & Refining Co.'s No. 1, NE SW NW Section 2-25-3, dry and abandoned at 3,576 feet. Top of the Mississippi lime lay at 3,500 feet.

Texas Co.'s No. 3, SE SE NE Section 29-25-8, 18-bbl. completion, producing from Burgen sand at 2,482-91 feet.

Lewis Oil Co. and Continental Oil Co.'s No. 5, 980 feet from south and 300 feet from west lines of SE quarter Section 9-24-7, Naval Reserve Pool, Bartlesville sand at 2,582 feet, gas at 2,586 feet, total depth 2,590 feet, flowed 480

Wildcat Operations in Oklahoma

(Continued from Preceding Page)

PAYNE COUNTY

Marathon Oil Co.'s No. 1 Potts, C SW SW Sec. 27-19-2.
Top Arbuckle 5,085 ft.; T.D. 5,116 ft.; P.B. to 4,550 ft.; set 6-in. 4,489 ft.; drilled plug and got wtr.; P.B. to 4,510 ft.; H.F.W.

PITTSBURG COUNTY

McAllister Pet. Corp. et al's No. 1 Chunn, C SE NW Sec. 29-4-14.
T.D. 1,530 ft.; pipe collapsed; S.D.

P. H. Gray et al's No. 1 Lee, NW SE Sec. 12-5-12.
Drlg. 1,150 ft.

PONTOTOC COUNTY

Anderson & Kerr's No. 1 Newburn, NW SW NE Sec. 24-5-3.
Rig.

E. M. Blanchard's No. 1 Crabtree, NE SE NE Sec. 27-3-6.
S.D. 2,920 ft.

Charles E. Carter's No. 1 Wood, NW SW SE Sec. 5-4-3.
S.D. 2,070 ft.

Crabtree's No. 1 Chandler, NE SE SW Sec. 4-5-6.
Drlg. 110 ft.

Crabb-Craw Oil Co.'s No. 1-A Breco, SE NE SW Sec. 2-4-6.
Sand 1,106-18 ft.; pumped 10 bbls. in 24 hrs.; S.D.

Fleetborn Oil Corp.'s No. 1 Oliver, NE NW SE Sec. 21-4-5.
Location.

C. W. James et al's No. 1 Neal, C NW SE SW Sec. 4-5-3.
Viola 3,798 ft.; T.D. 3,807 ft.; lowering 7-in. csg.

Mudge O. & G. Co.'s No. 1 Clampett, SW NW NW Sec. 10-2-6.
S.D. 915 ft.

Paramount Oil Co.'s No. 1 Graham, SW SE SW Sec. 13-1-7.
500 ft. wtr. in hole from second Bromide sand at 3,288-98 ft.

Gillett & Kroeger's No. 1 Robbins, NE SE Sec. 31-1-4.
Machine.

Gillette & Kroeger's No. 1 Duver, NW SE Sec. 36-1n-6e.
Drlg. 1,185 ft.

H. M. Marcum's No. 1 Magnuson, SW SE SE Sec. 23-2-7.
S.D. 1,929 ft.; tools stuck; H.F.W.

J. D. Sledge and Jack Lynch's No. 1-A (twin) Thompson, SW NE SW Sec. 1-1n-7e.
Pulled 3,875 ft. of 6-in. csg.; flows 60 bbls. per day from Hunton lime topped at 3,830 ft.

Southern Oil Co.'s No. 1 Walker, NW NW SW Sec. 11-4-6.
Sand 785-816 ft.; 3,000,000 ft. of gas; S.D. 820 ft.

POTTAWATOMIE COUNTY

Howard Sherman et al's No. 1 Wingo, NE NW SE Sec. 22-10-5.
Rig.

SEMINOLE COUNTY

Ray Dorris and J. T. Hall's No. 1 Dorris, SE SE SW Sec. 31-10-7.
S.D. 500 ft.

Crabtree Drlg. Co.'s No. 1 Chandler, NE SE SW Sec. 4-5-6.
S.D. 110 ft.

Verser & Clay et al's No. 1 Thomas, NE SE NW Sec. 1-6-6.
S.D. at 2,802 ft.

Wofford Drlg. Co. et al's No. 1 Abbott, NE cor. Sec. 33-8-7.
Drlg. 1,910 ft.

Wofford Drlg. Co. et al's No. 1 Thomas, NW SE Sec. 8-6-7.
Dolomite 3,890 ft.; T.D. 3,917 ft.

TEXAS COUNTY (PANHANDLE)

Ben F. Ash et al's No. 1 Guymon Townsite, C NE SE Sec. 30-3n-15e; (Cimarron Meridian).
T.D. 2,420 ft.; fishing for drill pipe.

WASHITA COUNTY

Okla.-Midwestern Oil Co.'s No. 1 Dock, SW cor. Sec. 21-8-18w.
T.D. 2,430 ft.; lost tools in hole; rig rebuilt; S.D.

Anadarko Basin Oil Co.'s No. 1 Wolf, NE SW Sec. 23-9-17w.
Rigged up and S.D.

SOUTHERN OKLAHOMA

ATOKA COUNTY

Brookshire et al's No. 1 Rowland, NW NE NE Sec. 18-3-10.
H.F.W. 3,844 ft.; P.B. 757 ft.; treated with acid; C.O.

Malernee et al's No. 1 D. O. K. Land Co., C SE SE Sec. 36-1s-13.
S.D. 1,115 ft.

BRYAN COUNTY

C. B. Welch's No. 1 Collins, NE NE Sec. 19-8s-8e.
Machine.

COMANCHE COUNTY

H. W. Baker's No. 1 Miller, SE SW SE NE Sec. 22-2-13w.
Drlg. 115 ft.

Oscar Jones' No. 1-A Sheetz, NE SW Sec. 26-3-10w.
Machine.

Henry Rosenthal et al's No. 1 Au-che-re-ah, NW NW NW Sec. 5-1n-9w.
Sand 1,479-93 ft.; bailed dry; filled 300 ft. with fluid in 24 hrs.; tools moved out.

F. F. Stevens' No. 1 Green, SE SW Sec. 2-1-13w.
S.D. 1,315 ft.

Heiden & Taylor's No. 2 Crutcher, C NE Sec. 11-1n-12w.
S.D. at 860 ft.

JACKSON COUNTY

Associated Oil Co.'s No. 1 Harrell, NE SW Sec. 13-1-21w.
S.D. 770 ft.

J. G. Buel et al's No. 1 Kizziar, SE SE NE Sec. 2-2n-22w.
Rigged up and S.D.

Burk Royalty Co.'s No. 1 Gore, SE NW SE Sec. 3-1s-20w.
S.D. at 1,909 ft.

A. H. Emenheiser's No. 1 Morrell, SE SW SE Sec. 17-3n-21w.
Drlg. 910 ft.

Golden & Cochran's No. 1 Duncan, NE cor. Sec. 34-2n-21w.
Drlg. 940 ft.

Gypsy Oil Co.'s No. 1 Stokes, SE NW SW Sec. 11-1-20w.
Lime 1,709-11 ft.; T.D. 1,722 ft.; S.D.

Jack Kilgore's No. 1 Wooldridge, SW SW NE Sec. 15-3n-21w.
Rigging up standard machine.

Palo Duro Oil Co.'s No. 1 Ealum, SW SW SE Sec. 16-2-21w.
T.D. 840 ft.; S.D. for power unit.

Petroleum Prod. Co.'s No. 1 Cole, SW SE Sec. 34-2-20w.
Granite wash 1,454-61 ft.; pumped 24 bbls. in 24 hrs.

Selby Oil Co.'s No. 1 Hold, SE SW Sec. 15-2-20w.
Drlg. 965 ft.

Dick Schleig's No. 1 Sue Richardson, SW NW SE Sec. 30-1n-19w.
Location.

D. Scheig's No. 1 James, NE cor. Sec. 23-1-20w.
Dry and abd. 1,904 ft.

D. Scheig et al's No. 1 Cole, NE SE SE Sec. 5-1n-20w.
T.D. 1,020 ft.; waiting for drlg. line.

Dick Scheig et al's No. 1 Cole, NE SE SE Sec. 5-1n-20w.
Drlg. 1,200 ft.

Triangle Oil Co.'s No. 1 Fox, C E½ W½ NW Sec. 11-3n-20w.
Spudded and S.D.

Whatley & Whatley's No. 1 Holt, NW SW SE Sec. 20-1n-20w.
Drlg. 802 ft.

JEFFERSON COUNTY

Gypsy Oil Co.'s No. 1 James, SW SE SE Sec. 30-6s-6w.
Rig.

JOHNSTON COUNTY

W. A. Delaney et al's No. 1 Diamond, NW NE SE Sec. 5-1s-8.
Drlg. 2,100 ft.

MARSHALL COUNTY

Paul Robb's No. 1 Vittetoe, C NE SE Sec. 11-5s-4e.
Drlg. 5,138 ft.

McCURTAIN COUNTY

J. V. Scrivener et al's No. 1, NE SW SW Sec. 24-6s-21.
Machine.

MURRAY COUNTY

Equitable O. & G. Co.'s No. 1 Baer, SW NW NW Sec. 21-1s-3e.
H.F.W. 1,369 ft.; S.D. 1,500 ft.

Equitable O. & G. Co.'s No. 1 Scott, CSL N½ NW SW Sec. 15-1s-3.
Drlg. 1,369 ft.; H.F.W.

Manahan et al's No. 1 Ward, NE SE NW Sec. 18-1s-3; (Wilcox sand test).
Drlg. 1,295 ft.; top of Bromide 1,166 ft.

C. P. Williams et al's No. 1 Singleterry, SE SW NW Sec. 25-2s-3e.
T.D. 743 ft.; S.D.

STEPHENS COUNTY

J. W. Madison's No. 1 Tussey, SW SE NW Sec. 24-1n-4w.
Rig down, drill pipe in hole; T.D. 3,230 ft.

bbls., 484 bbls., and 486 bbls. in three successive days and then 521 bbls. in 21 hours.

Lewis Oil Co. and Texas Co.'s No. 4, NE SE SW Section 9-24-7, shot with 40 quarts in sand at 2,630-95 feet, swabbed 100 bbls. in 24 hours.

Lewis Production Co.'s No. 7, NW NE SW Section 16-24-7, sand at 2,598 feet, first oil at 2,611 feet, total depth 2,660 feet, shot with 80 quarts, flowed 515 bbls. in 24 hours.

Bay Oil Co. and Norbla Oil Corp.'s No. 1, NW NW NW Section 30-22-8, previously reported as having opened a Siliceous lime pool in the Hominy district, was completed at 2,904-34 feet. It was acidized, and flowed 3,366 bbls. in 5 days and 14 hours and was then pinched in to a production of 200 bbls. per day.

Barnsdall Oil Co.'s No. 24, C W half W half NE Section 30-21-9, a 10-bbl. completion from sand at 356-83 feet. Same company's No. 15, 810 feet from north and 300 feet from east lines of NW quarter Section 30-21-9, a 15-bbl. well in sand at 360-86 feet. Johnson Oil & Refining Co.'s No. 5, C W half W half SE Section 30-21-9, a 15-bbl. well in sand at 302-21 feet.

Texas Co.'s No. 2, NE NE SW Section 17-21-10, Hominy sand at 2,460-2,501 feet, shot with 40 quarts and produced 65 bbls. in 12 hours; drilled to 2,512 feet and tubing run to 2,110 feet and made a 40-bbl. pumper.

New work in Osage County included Sinclair Prairie Oil Co.'s No. 3, SE NE SE Section 9-25-6, South Burbank, moving in; Sinclair Prairie Oil Co.'s No. 4, NE SE SE Section 9-25-6, moving in; A. H. Kasishke's No. 10, NE NW SW Section 15-25-6, cellar; Phillips Petroleum Co.'s No. 8 Bear, NW SW NW Section 15-25-6, rig on ground; Sinclair Prairie Oil Co.'s No. 3, SE NE NE Section 16-25-6, rig on ground; Champlin Refining Co.'s No. 8, SE SW NW Section 16-24-7, Naval Reserve Field, rig on ground; Lewis Production Co. and Continental Oil Co.'s No. 8, NE NW SW Section 16-24-7, rig on ground; Continental Oil Co. and Gypsy Oil Co.'s No. 10, SW NE NE Section 21-24-7, building rig; Continental Oil Co. and Gypsy Oil Co.'s No. 11, SE NE NE Section 21-24-7, building rig; Bay Oil Co. and Norbla Oil Co.'s No. 1, SE SE SE Section 24-22-7, moving in material; Pure Oil Co.'s No. 5, NE NE NE Section 25-22-7, building rig; F. W. Fields' No. 1, NE NE SW Section 23-21-8, location; Charles R. Gray and others' No. 7, 1,016 feet north and 1,116 feet east of SW cor. Section 27-21-9, machine in.

Lincoln County

Texas Co. and others' No. 2 Coyle, NW SW NW Section 34-14-4, in the Gessman Pool in Lincoln County, had Cleveland sand at 3,045-55 feet, and flowed 140 bbls. in 24 hours.

Texas Co. made a location for No. 3 Gessman, NE SE NE Section 33-14-4, and was rigging up rotary for No. 2 Hoover, NW NE SE Section 33-14-4. Carter Oil Co. and others have rig up for No. 1 McFarland, SW NE Section 18-13-4.

Okfuskee County

In Okfuskee County, Atlantic Oil Producing Co.'s No. 2 Berryhill, 660 feet north and 330 feet west of C Section 35-11-9, swabbed 12 bbls. of oil in 24 hours from sand at 1,440-61 feet and was completed. In the same county Mid-Continent Petroleum Corp.'s No. 1 Dindy-B, SE SW NE Section 31-11-11, is a 5,000,000-foot gasser. Hunton lime was topped at 3,616 feet and the hole was bottomed at 3,667 feet, 1 foot in Slyvan shale.

Greater Seminole

Pure Oil Co. and Sovereign Oil Co.'s No. 2 Coker, NW SE NE Section 2-8-5, Seminole County, was treated with acid at 3,984-4,024 feet and pumped 315 bbls. of oil gross in five hours. It had been drilled to 4,403 feet and plugged back because it drilled into salt water.

Texas Co. and others' No. 1 School land, NW SW NW Section 16-8-5, Pottawatomie County, acidized in Hunton lime at 4,303-70 feet, pumped 75 bbls. gross in 42 hours.

In the South St. Louis area, E. W. Jones' No. 2 Brandenburg, NW NW NE Section 10-7-4, swabbed 30 bbls. of oil in 24 hours from sand at 3,473-3,508 feet.

In the Fish Pool, Magnolia Petroleum Co.'s No. 6 Reed, SW SE SE Section 30-7-8, had Simpson dense at 4,178 feet, Dolomite at 4,218 feet and was bottomed at 4,249 feet, with 4,100 feet of oil in the hole.

Mid-Continent Petroleum Corp.'s No. 3 Harjoche, NW SW SE Section 31-7-8, was completed. It flowed 1,406 bbls. in six hours from Wilcox sand at 4,183-4,212 feet.

Superior Oil Corp.'s No. 2 Ham, NW NE NE Section 5-6-4, Pottawatomie County, had Simpson dense at 4,132 feet and Dolomite at 4,175-4,227 feet. It swabbed 12 bbls. of oil per hour. It will be acidized.

Southern Oil Co.'s No. 1 Osborne, NW SW NE Section 11-6-6, Seminole County, had 12,000,000 feet of gas from sand at 2,413-28 feet, total depth. It was shut in. The well will be deepened.

New work reported in the Greater Seminole area included Atlantic Oil Production Co.'s No. 2 Boyd, C S half SE SE Section 7-9-5, a corrected location; Murray Oil Co.'s No. 1 Mayhue, NE NW NW Section 14-9-6, spudded; Magnolia Petroleum Co.'s No. 2 Hancock, NW NE SW Section 11-7-4, location; Sinclair Prairie Oil Co.'s No. 2 M-Qua-Ka, NE NW SW Section 11-7-4, location; Magnolia Petroleum Co.'s No. 2 Jones, NE NW NE Section 18-7-4, location; Magnolia Petroleum Co.'s No. 1 Gracie Hayes, SW SW NW Section 16-7-8, rigging up to deepen from 2,925 feet; Kennedy & Horner's No. 1-A Chapman, NE NE SE Section 8-6-8, rigged up.

Pontotoc County

In the Fitts Pool in Pontotoc County, eight wells were completed nearly all of which have been reported in their near completion stage. The completions, their sand record and initial production follows:

Blackstock and others' No. 4 Craddock-B, SE NE SE Section 25-2-6, Bromide 4,050 feet; sands at 4,170-80 feet and 4,234-70 feet, McLish at 4,270-82 feet, 432 bbls. first hour through casing, 156 bbls. second hour through tubing.

Fleetborn Oil Co.'s No. 1-A John Norris, SE NW NE Section 25-2-6, old well deepened from 1,457 feet to sand at 1,880-87 feet, pumped 60 bbls. of oil in 24 hours, with a little water.

Magnolia Petroleum Co.'s No. 6 Tom Norris, SW SW NE Section 25-2-6, Bromide at 4,150 feet; sands at 4,242 feet and 4,329 feet, total depth 4,338 feet, flowed 460 bbls. of oil first hour through casing and 189 bbls. second hour through tubing.

E. H. Moore and others' No. 1 Smith-B, SW SE SE Section 25-2-6, Bromide at 4,090 feet, sands at 4,205 feet and 4,245 feet, McLish at 4,310 feet, total depth 4,315 feet, 735 bbls. in three hours, 7 per cent water and 2½ per cent b.s.

E. H. Moore and others' No. 2 Smith-B, SE cor. Section 25-2-6, Bromide at 4,075 feet, sands at 4,190 feet and 4,260 feet, McLish at 4,320 feet, total depth 4,325 feet flowed 875 bbls. of oil first hour through casing.

E. H. Moore and others' No. 4 Wirick, NW SW SE Section 29-2-7, Bromide at 3,840 feet; sands at 3,945 feet and 4,030 feet, McLish at 4,062 feet, total depth 4,071 feet, 852 bbls. in three hours through casing, and gas at the rate of 2,000,000 feet per day.

Blackstock Oil Co.'s No. 5 Hardin-D, NW SE NW Section 30-2-7, Bromide at 4,120 feet, sands at 4,220 feet and 4,280 feet, McLish at 4,315 feet and total depth 4,327 feet, flowed 574 bbls. in one hour through casing.

W. A. Delaney and others' No. 3 Hardin, C NW SW NW Section 30-2-7, Bromide at 4,130 feet, sand at 4,240 feet and 4,310 feet, McLish at 4,351 feet, total depth 4,359 feet, flowed 719 bbls. in one hour through casing and 210 bbls. in one hour through tubing.

In addition to the above and not completed Stanolind Oil & Gas Co. and

(Continued on Page 94)

Fitts Field And Coal County

Oil

Leases
Royalties
Production
Drilling Blocks
Appraisals

Charles J. Hagerling

Aldridge Hotel
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or
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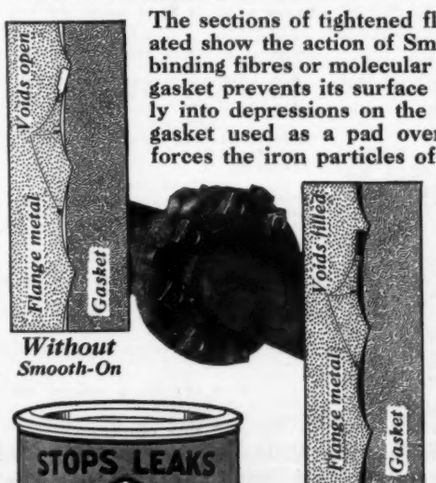

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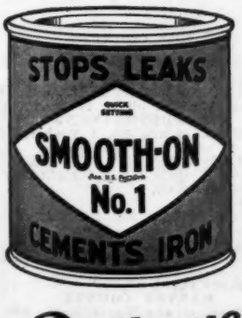

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New Pool in Barton County Promised Immediate Development; Big Wells in Reno and Rice

By JAMES McINTYRE

Eight tests are contemplated in the neighborhood of the Treleaven & Brimm's No. 1 Haas, in Section 30-18-15w, in southwestern Barton County, which well recently opened a new pool. As No. 1 Haas is 330 feet from the Rush County line, some of the tests will be over the line in the latter county, and location has already been made for a southwest offset to the discovery.

Big wells continue to come in in the Burrton Pool in Reno County, two of the past week's crop starting off at 3,951 bbls. in 24 hours and 3,043 bbls. in 17 hours. Rice County had three new ones which made over 1,000 bbls. each initially, and averaged over 1,300 bbls. per well for the three.

A new productive spot was opened in Rooks County by Stearns & Streeter and others in Section 34-9-16w, the well making 120 bbls. in 24 hours from Oswald lime.

Estimated Production

Estimated daily average production of Kansas for the week ended March 9 and for the preceding week follows:

	Barrels	
	Mar. 9	Mar. 2
Haury-Burrton	22,875	21,200
Hollow	5,100	5,450
Rits-Canton	10,100	10,450
Voshell	5,625	6,700
Johnson	2,450	2,440
Nikkell	5,250	5,575
Sedgwick County	9,925	10,700
Ellsworth County	5,070	4,605
Barton County	1,650	1,431
Rice County	18,175	21,571
Ellis County	280	421
Kingman County	1,190	1,145
Stafford County	1,740	1,170
Russell County	10,850	8,250
Greenwood County	10,500	10,750
Butler County	18,800	18,975
Other pools	14,045	15,547
Total Kansas	143,625	146,380

Sumner County

Tom Palmer's wildcat test in Sumner County, No. 1 Wentworth, NW NW NE Section 9-35-2, pumped 60 bbls. of oil and 2 bbls. of water from Chat pay at 3,373-3,423 feet, which had been shot with 15 quarts.

Cowley and Elk Counties

Griffin & Bell completed No. 1 Chaffin, NW NW SE Section 1-32-10, Elk County. It pumped 45 bbls. in 24 hours from Oswego lime at 1,626-54 feet, which had been acidized.

McDonald and others' No. 1-A Mortridge, NW cor. Section 11-31-12, was dry and abandoned at 1,102 feet. A 40-quart shot at 1,084-1,102 feet yielded a little oil.

Lassen's No. 1 Ferguson, SE SE SW Section 21-30-8, was a 90-bbl. pumper, completed in a pay at 2,172-76 feet, which was acidized.

Morrow Brothers were drilling at 350 feet in No. 2 Dunkleberger, C W half E half SE NW Section 34-29-10, Elk County.

Sedgwick County

Dickey Oil Co.'s No. 2 Yaw, 150 feet north and 612 feet east of C Section 20-28-1e, Sedgwick County, was completed. It flowed 777 bbls. of oil in 24 hours from Chat at 3,084-3,117 feet, which had been acidized.

Magnolia Petroleum Co. completed No. 5 Robbins, 1,080 feet south and 240 feet east of C Section 20-28-1e, which produced 131 bbls. of oil and 125 bbls. of water in 24 hours, following an acid treatment.

Aladdin Petroleum Co. and others completed No. 1 D. Lauck, SE NE NW Section 21-28-2. It was dry in Siliceous lime at 3,355-70 feet and was abandoned. It was a wildcat.

Syndicate Oil & Gas Co. and others' No. 1 Ratzlaff, NE NW NW Section 30-26-2, was dry in all formations including Siliceous lime at 3,504-20 feet, and was abandoned.

Dickey Oil Co.'s No. 1 Cook, an old well, NE NE NW Section 20-28-1e, was acidized and swabbed 189 bbls. in seven hours.

Dickey Oil Co. had cellar dug for No. 3 Yaw, SE SW NE Section 20-28-1e. E. B. Shawver was building rig for No. 5 Russell, SW SW SE Section 17-28-1e.

Stafford County

Atlantic Oil Producing Co. and Phillips Petroleum Co.'s No. 1 Guthrie, C NW NW Section 15-25-11w, Vickers Pool, Stafford County, was shut down at 4,108 feet, 4 feet in Siliceous lime, with 200 feet of water in the hole.

Kingman County

Magnolia Petroleum Co.'s wildcat test in Kingman County, No. 1 Barthomew, SE SE SW Section 30-27-4w, found Wilcox sand at 4,129 feet. Water broke in at 4,146 feet, filling the hole 1,400 feet. It was drilled to 4,148 feet and abandoned as a failure.

Butler County

McGinnis & Co.'s No. 1 Huston, SW SW NE Section 1-25-3, Butler County, filled 1,800 feet with oil in eight hours from a pay at 2,682-92 feet. It has not been tested.

Swain and others' No. 1 Harder, 1,015 feet north and 530 feet west of C Section 11-24-3, was a hole full of water at 2,600 feet, and was abandoned.

Woodson and Greenwood Counties

Shull's No. 1 Harris, NE SE SE Section 18-24-13, Greenwood County, was dry and abandoned at 1,608 feet. It had a hole full of water from Mississippi lime at 1,618-34 feet.

Elbar Oil Corp. has a machine in for No. 4 Figge, 1,020 feet north and 1,120 feet east of SW cor. Section 27-23-14, Woodson County. Theta Oil Co. was drilling at 300 feet in No. 5 McClaskey (a twin), 300 feet from south and 900 feet from E lines of NE Section 31-23-14.

Reno County

Hartman & Blair and others' No. 1 Carmichael, C SW SW Section 10-24-4w, Reno County, flowed 280 bbls. of oil in 24 hours from Chat at 3,353-85 feet.

Texas Co. had rig up for No. 1 Stone, C SW NW Section 15-24-4w.

Olson Oil Co. and Shell Petroleum Corp.'s No. 6 Downie, NE NW NE Section 14-23-4w, in the Burrton Pool, pumped and flowed 3,951 bbls. in 24 hours from Hunton lime at 3,595-3,614 feet, which had been acidized. It was completed.

Olson Oil Co., Shell Petroleum Corp. and Continental Oil Co. completed No. 3 Blake, 610 feet from south and east lines of SE Section 23-23-4w. It flowed 290 bbls. in 24 hours from Chat at 3,328-70 feet.

Olson Oil Co. and Shell Petroleum Co. completed No. 4 Krehbeil-A, NW NE NW Section 26-23-4w. It had been acidized, and pumped and flowed 290 bbls. in 24 hours from Hunton lime at 3,592-3,614 feet.

Olson Oil Co. and Sinclair Prairie Oil Co.'s No. 4 Adkins, NW NW SW Section 35-23-4w, was acidized in Hunton lime at 3,585-3,625 feet, and pumped 930 bbls. of oil in 24 hours. It was completed.

On the same lease on which Olson & Shell got the 3,591-bbl. completion above mentioned, the same companies' No. 8 Downie had Hunton lime at 3,605-20 feet and 2,000 feet of water and 1,000 feet of oil in the hole. It had not been tested.

Olson Oil Co. and Shell Pteroleum Corp.'s No. 2 Harner, NE NE NW Section 14-23-4w, pumped and flowed 3,043 bbls. of oil in 17 hours from Hunton lime at 3,615-25 feet. It was not completed.

Barnsdall Oil Co. was rigging up No. 13 Sabin C, NW SE SE Section 11-23-4w, and was building rig for No. 14 Sabin C, NE NW SE same section. Marathon Oil Co. was building a rig for No. 5 Vansickle, SE SW NW Section 23-23-4w. Olson Oil Co. and Shell Petroleum Corp. made a location for No. 5 England, SE SW SE Section 34-23-4w. There are now 52 locations, rigs up and wells drilling in the Burrton Pool in Township 23-4w.

Manning & Terry and others are rigged up to deepen No. 1 Bartel, 340 feet from the south and 209 feet from the east lines of SW Section 36-22-4w, in the Haury Pool, old total depth 3,340 feet.

Harvey County

Sinclair Prairie Oil Co. was drilling at 3,223 feet in No. 2 Neufeldt A, 1,320 feet from north and 330 feet from east lines of SE Section 18-22-3w, an old well being deepened from 3,180 feet. It is in the Hollow Pool, Harvey County.

Shell Petroleum Corp.'s No. 2 Neufeldt, 1,321 feet south and 1,325 feet east of NW cor. Section 8-22-3w, swabbed 70 bbls. in 12 hours from Hunton lime at 3,470-91 feet.

L. W. Prunty and others' No. 1 Davis, NE cor. Section 6-22-1w, had Wilcox sand at 3,457 feet and was a hole full of water at 3,530-33 feet. It will be plugged back to Hunton lime topped at 3,298 feet. It had a showing at 3,302-22 feet.

McPherson County

W. W. McNabb and Shell Petroleum Corp.'s No. 2 Neufeldt, 330 feet north and 641 feet west of C Section 21-21-3w,

(Continued on Page 82)

Wildcat Operations in Kansas

Week Ending March 9

(Descriptions are East unless marked otherwise)

BARBER COUNTY

Sam Jarvis et al's No. 1 Morrisse, C SE NE Sec. 23-30-10w.
Rig.

Southern Drlg. Co. et al's No. 1 Davis, 330 ft. from W and 330 ft. from S lines of NE Sec 13-34-15w.
S.D. 2,865 ft.

BARTON COUNTY

D. I. Hall et al's No. 1 Arnold, SE SE SW Sec. 19-18-15w.
Moving in tools.

McMorrow & Spencer's No. 1 Hagen, NE cor. Sec. 33-20-11w.
13-in. csg. 525 ft.; drlg. 700 ft.

C. L. Price et al's No. 1 Ehrlich, NW SE Sec. 10-16-13w.
T.D. 360 ft.; fishing.

Suppes & Witt's No. 1 Hayes, SW cor. Sec. 7-16-15w.
Ponds.

Treleaven & Brimm et al's No. 1 Haas, SW cor. Sec. 30-18-15w.
6-in. 3,405 ft.; Reagan sand 3,585 ft.; pay 3,603-06 ft.; T.D. 3,613 ft.; pumped 320 bbls. in 24 hrs.; completed.

BUTLER COUNTY

Trees & Harwood's No. 1 Henley, SW SE NE Sec. 7-24-3.
Drlg. 200 ft.

CLAY COUNTY

Seidel Bros.' No. 1 Younken, C S½ SE NW Sec. 21-9-4.
5-in. liner 1,625 ft.; T.D. 1,720 ft.; S.D.

COWLEY COUNTY

Tom Palmer's No. 1 Wentworth, NW NW NE Sec. 9-35-2.
Shot with 15 qts. at 3,413-17 ft.; pumped 60 bbls. oil, 2 bbls. wtr.

Lloyd, Frost & Study's No. 1 Weathered, SW SE SE Sec. 28-31-3.
Rig.

A. McCoy's No. 1 Brandenburg, SW SE SE Sec. 17-34-5.
Spudded.

Wakefield et al's No. 1 Newton, SE cor. Sec. 21-30-2.
Rig.

ELK COUNTY

Lassen's No. 1 Ferguson, SE SE SW Sec. 21-30-8.
1,760,000 ft. of gas 2,056-58 ft.; 5-in. csg. 2,160 ft.; sand 2,169-76 ft.; T.D. 2,191 ft.; acidized; 90 bbls. oil in 24 hrs.; comp.

ELLSWORTH COUNTY

Carter Oil Co. et al's No. 1 Teuber, 440 ft. N and W of C Sec. 26-17-9w.
Drlg. 2,515 ft.

Lario O. & G. Co.'s No. 1 Wright, SW SW NE Sec. 17-16-8w.
Drlg. 925 ft.

Lario O. & G. Co.'s No. 1 State, SW cor. Sec. 29-15-8w.
Moving in material.

Pryor & Lockhart's No. 1 Gregory, SE SE SE Sec. 19-16-8w.
Fishing 900 ft.

HARVEY COUNTY

O. J. Connell et al's No. 1 Roth, SW cor. Sec. 16-22-2w.
Spudded and S.D.

Wenzel et al's No. 1 Schrag, NW SE Sec. 24-23-3w.
T.D. 587 ft.; S.D. for csg.

KINGMAN COUNTY

Magnolia Pet. Co.'s No. 1 Bartholomew, SE SE SW Sec. 30-27-4w.
Wilcox sand 4,129-46 ft.; H.F.W.; abd.

MARION COUNTY

Youker et al's No. 1 Bernhardt, C SE NW Sec. 7-18-4.
Drlg. 1,625 ft.

McPHERSON COUNTY

Brosius et al's No. 1 Hanson, NE NE SW Sec. 15-17-2w
S.D. 105 ft.

Carey & Miller's No. 1 Husband, SE SE NW Sec. 6-19-3w.
Moving in material.

Johnson & Carey et al's No. 1 Dyck, SE NE SE Sec. 35-22-5w.
Wilcox 3,968-85 ft.; set 6-in. 3,968 ft.; Drilled plug; H.F.W.; P.B. to 3,978 ft.; drlg. 4,025 ft.

Lario O. & G. Co. et al's No. 1 Schreg, NW SW SW Sec. 22-19-4w.
Siliceous lime 3,880-89 ft.; T.D.; S.D.

Lario O. & G. Co.'s No. 1 Base, SW cor. Sec. 22-20-2w.
Wilcox 3,495 ft.; H.F.W. 3,505-10 ft., T.D.; fishing.

Palmer Oil Corp.'s No. 1 Swenson, NE NE SW Sec. 11-18-3w.
T.D. 1,360 ft.

L. W. Prunty et al's No. 1 Davis, NE cor. Sec. 6-22-1w.
Chat 2,922 ft.; drlg. 2,928 ft.

Shell Pet. Corp.'s No. 1 Wenger, NE cor. Sec. 2-20-1w.
16-in. pipe 199 ft.; drlg. 1,400 ft.

Stafford et al's No. 1 Krehbiel, NW NW SE Sec. 27-21-3w; (O.W.D.D.).
C.O. at 2,080 ft.

NESS COUNTY

Phillips Pet. Co.'s No. 1 Young, C NW SW Sec. 13-18-21w.
S.D. 75 ft.

Texas Co. and Gypsy Oil Co.'s No. 1 Goodman, C SW SW Sec. 21-19-23w.
T.D. 4,805 ft.; S.D.

RENO COUNTY

Bradley's No. 1 Olmsted, SW SW SW Sec. 22-22-7w.
Moving in material.

Foraker et al's No. 1 Hiett, SE SW NE Sec. 34-24-4w.
T.D. 1,285 ft.; S.D.

Kessler, Their and Skelly's No. 1 Bigger, NE SE SW Sec. 29-23-6w.
Siliceous 4,141-50 ft.; dry and abd.

Privett Drlg. Co.'s No. 1 Crotts, NE NW NE Sec. 27-26-10w.
8-in. 2,498 ft.; H.F.W. 2,632-42 ft.; S.D. 2,712 ft.

RICE COUNTY

Allison & Fitzwilliams et al's No. 1 Stumps, NW NW SW Sec. 4-18-10w.
Drlg. 2,603 ft.

Bradley's No. 1 Olmstead, SW SW SW Sec. 22-22-7w.
Moving in material.

Day et al's No. 1 Mason, NW NE NE Sec. 28-21-7w.
Rig.

Day's No. 1 Mason, NW NE NE Sec. 28-21-7w.
Moving in material.

Foraker, Nickerson et al's No. 1 Lyons, SE NW Sec. 27-20-8w
Set 8-in. csg. 2,588 ft.

(Continued on Page 90)

Rayburn Bill Is "a Destructive Proposal" Delares Standard Oil Co. (N. J.)

Terming the Rayburn bill, which provides for abolition of public utility holding companies after January 1, 1940, "a destructive proposal," The Lamp, official publication of the Standard Oil Co. of New Jersey, states that if the bill is enacted it will compel the company to divest itself of its natural gas business, acquired largely in the ordinary course of its operations, and that this would be detrimental to stockholders and employes of the company.

"If the Rayburn bill were to become a law as introduced, Standard Oil Co. of New Jersey would face three serious requirements," the article in The Lamp reads in part.

"By October 1, 1935, it would have to register all of its activities, of which its natural gas interests are a lesser part, as a public utility holding company. If it did that it would have until January 1, 1937, to divest itself of its natural gas properties and remain in the oil business, or to continue as a utility holding company and divest itself of its much more important petroleum activities. In the latter event, immediately after January 1, 1940, it would have to go out of existence as a utility holding company.

Made Cheap Fuel Available

"Natural gas interests have been acquired by the Jersey company to a large extent in the ordinary course of its operations. The company has devoted much effort and money to marketing gas. It has made cheap fuel available to many communities in sections which would not otherwise enjoy it. Many companies in the oil business have acquired large reserves of natural gas in the normal course of operation. Some of this gas has been used in manufacturing processes in the field, but this use has reflected only a part of the real value of the commodity. It is a natural and public service for such companies to assume the financial burden of installing facilities to transport this gas to a market.

"It is impossible to finance such operations in the districts in which the gas is found and it is only by the superior financial ability of a large corporation, or group of corporations or holding companies, capable of underwriting the hazards involved that such operations are possible. In the bill such companies—which are not in any sense public utilities—would be compelled, regardless of the cost to them or other security holders, to divest themselves of their interest in their natural gas business.

Gas Due to Oil Prospector

"If they are forced to separate the oil and natural gas business, a sound and economic development would be forbidden. Natural gas is found sometimes with oil and again by itself. Most natural gas deposits have been discovered through the operations of the oil prospector. If in the search for petroleum he obtains an adequate supply of gas, it is his duty to promote its use and provide means for getting it to the market. The proposed limitation would restrict the opportunity to use natural gas and make its many advantages available to the consumer.

"In the development of its natural gas business, Standard Oil Co. (New Jersey) built up gas companies which distribute to consumers and which are public utility companies under state regulations as to rates and service. It also joined with other companies in constructing interstate pipe lines to carry gas to serve domestic and industrial markets, the domestic markets being regulated by state commissions. The company recognizes that regulation by state commissions is necessary in the distribution of natural gas by public utilities and that interstate transmission lines might be subject to regulation to the extent that they are essential to the successful operation of state regulated public utility companies. To that end we believe that the federal Government should exercise such rights of regulation as would supplement the scope of state regulatory bodies necessary to protect the interests of consumers and investors.

Against Public Interest

"None of the abuses so widely publicized has touched the operation of the natural gas companies owned by Standard Oil Co. (New Jersey). No evils have been alleged as applicable to their service or financing. Nevertheless, in the effort to eliminate such abuses as may have developed in the operation of public utilities and their holding companies and to prevent their recurrence, the bill takes in the natural gas properties and its enforcement would bear as heavily upon them as though they had been guilty of such practices.

"Laws that put unfair exactions upon corporations do not help the public interest; they may bear heavily upon a few wealthy persons but they go far beyond that group. The Standard Oil Co. (New Jersey), for example, has approximately 135,000 shareholders. On the usual relation of breadwinners and dependents, it is a fair assumption that some 600,000 people are directly concerned with the regular receipts of dividends.

"That tells only part of the story. There are 60,000 domestic employes. This means another group of 300,000 men, women and children whose living hinges upon the maintenance of the rights of private business. Their wages, like the dividends paid shareholders, flow into the coffers of local business men in a thousand towns and villages; they pay taxes that support legislators who sometimes forget that a corporation is not Wall Street, not a score of capitalists, but their next door neighbors."

TAR SAND CONTRACT

EDMONTON, Alberta, Mar. 9.—The extraction of petroleum products from the Athabaska tar sands will be undertaken shortly under a new contract between the federal government at Ottawa and Max W. Ball and associates of Denver, Colo.

The contract grants the Ball syndicate exclusive rights for three years to the bituminous sand deposits in the Horse River federal reserve near McMurray. Mr. Ball is to erect a plant capable of treating 250 tons of bituminous sand per day. This plant is to be begun before December 31 and ready for operation by September 1, 1936. Mr. Ball is also to erect in Alberta and equip to the satisfaction of the minister a plant for refining, cracking and otherwise processing the bitumen, by extracting gasoline, asphalt and other products.

The new agreement between Mr. Ball and the government, approved by federal order-in-council, provides for undertaking development of 100 acres in the Horse River area, 1½ miles from McMurray. Under certain conditions Mr. Ball may extend his operations to cover the entire reserve, a total of 681 acres.

Mr. Ball is in Edmonton negotiating with the provincial government for transfer of certain provincial acreage, to supplement the concessions from the federal government.

PIPE ORDER PLACED

The General Petroleum Corp. of Los Angeles, Calif., has placed orders for 8,100 tons of 10¾-inch seamless steel pipe. National Steel Tube Co. was awarded 4,100 tons. An order of 3,200 tons went to the Youngstown Sheet & Tube Co. The balance was awarded to Spang-Chalfant Co.

H. A. FLINCHPAUGH DIES

H. A. Flinchpaugh, assistant superintendent of the Sinclair Refining Co.'s plant at Fort Worth, Tex., died suddenly March 6 from a heart attack.

"TRU-LAY makes more hole *per foot of line*"

ONE driller said: "They are asking a premium for Tru-Lay and no one can convince me it gives that much longer service."

To which we replied: "You surely haven't seen the Tru-Lay advertisement carrying this chart or you would realize that more and more drillers are coming to realize that the increased service given by Tru-Lay *Pre*formed is all out of proportion to the price differential.

"This chart shows exactly the progress of Tru-Lay *Pre*formed since its introduction in 1924—how Tru-Lay has gradually absorbed an ever increasing percentage of American Cable Company's plant production. That chart in itself indicates buyer acceptance.

"Tru-Lay Rotary Lines are *pre*formed. *Pre*forming eliminates all the internal stress characteristic of *non*-preformed lines: with the result that Tru-Lay gives you more hole per foot of line than any other brand. The chart in this 'ad' proves that Tru-Lay *Pre*formed Rotary Lines must be the cheapest in the long run."

AMERICAN CABLE COMPANY, Inc.
Wilkes-Barre, Pa.
In Business for Your Safety
District Offices: Atlanta, Chicago, Denver, Detroit, New York, Philadelphia, Pittsburgh, Houston, San Francisco

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TRU-LAY *Preformed* ROTARY LINES

World's Largest Marketers of
PETROLEUM COKE
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New Pool North of Eunice Is Definitely Proved; Cooper and Jal May Be Connected by Test

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Mar. 11.—Amerada Petroleum Corp.'s No. 1-D State, which opens a new pool 7 miles north of the Eunice Field in Lea County, New Mexico, was deepened 33 feet and responded with an increase in production to 945 bbls. in 24 hours. Four completions were reported in the Cooper Pool, one of them extending the proven area one-fourth of a mile to the north. An important well between the Cooper and Jal Pools, the Phillips Petroleum Co.'s No. 1 Worth, showed for 150 bbls. in one hour on a drill stem test. Eunice had three completions and four new locations, the best being Gypsy Oil Co.'s No. 3 Bell-Ramsey for 1,224 bbls. One new location was reported in Eddy County and another in Chaves County. The Skelly Oil Co.'s No. 1 Dow, in the Maljamar area, is estimated good for 30 bbls. a day.

There were no completions in Colorado. A wildcat started two years ago near Akron, in Washington County, is resuming after being idle for a long time.

One well good for 20 bbls. initial was completed in the Osage Field in Wyoming, a test in a fault block at the north end of the Garland Dome was dry and abandoned and one new operation was reported in Converse County.

One small well was completed in the Cut Bank Field in Montana and one new operation was reported in Big Horn County and another in the Pondera Field.

Utah had a distressing tragedy when 10 persons were killed in an explosion at the Arrowhead Petroleum Co. wildcat in Washington County. The recent opening of a big gas field in Emery County by Ramsey Petroleum Corp. is followed by reports of a big industrial project to be located at Marysville.

NEW MEXICO

The allocation of production in New Mexico for the first half of March provides for a daily allowable of 52,800 bbls., an increase of 2,400 bbls. over the last half of February. This comprises a federal allocation of 49,300 bbls. daily and 3,500 bbls. allocated by the state committee to absorb shortage of marginal wells in Lea County.

Allocation to fields outside of Lea County was 4,030 bbls., an increase of 680 bbls. daily, this increase being absorbed by the Artesia Field. The distribution exclusive of Lea County Pools is as follows:

Pool—	Bbls.
Artesia	3,100
Hogback	200
Rattlesnake	625
Table Mesa	90
Aztec-Bloomfield	15
Total	4,030

Twenty-six marginal units in Lea County were allocated 1,413 bbls. daily and the remaining 47,357 bbls. was distributed among 311 nonmarginal units. The top allowance per well per day for nonmarginal wells is 152 bbls. The marginal wells are permitted to produce at capacity. The marginal units include: Cooper, 4; Eunice, 2; Hobbs, 1; Jal, 15; Lea, 3; and North Lea, 1.

Total allocation to Lea County Pools, including marginal and nonmarginal wells, is as follows:

Pool—	Units	Allocation
Cooper	36	4,967
Eunice	44	6,594
Jal	38	4,389
Lea	11	1,397
Lea extension	1	19
Hobbs	307	31,404
Total	437	48,770

Hobbs potential as of March 1 is 2,200,251 bbls. daily from 207 units, of which one is given a special allowance. The number of water units increased from 36 to 38.

Monument Area—Lea County

Amerada Petroleum Corp.'s No. 1-D State, C NW NW Section 1-20-36, near the old townsite of Monument, 7 miles north of the Eunice Pool and 8 miles southwest of the Hobbs Field, definitely proved up a new pool in Lea County when it was deepened from 3,896 feet to 3,929 feet and responded with an increase in production. After deepening 33 feet it made 945 bbls. in 24 hours through the 3-inch tubing with the aid of bradenheaded gas. It was then shut in for tankage. Before deepening it made an average of 6 bbls. an hour for the first two hours on gas lift. The producing horizon is supposed to be the Terry in which the pay is found in the Hobbs Pool. There is a difference of opinion as to whether the well is located on a high running into Lea County out of Texas or on a southwest trend from the Hobbs Pool. In any event it can hardly be classed as an extension of the Hobbs Pool as the limits of the productive area on that high on the southwest have been definitely determined by the drill. The Amerada discovery has caused considerable interest in the area and some trading in royalties and leases is reported. Further development is expected to take place this summer.

Cooper Area

Four completions and several near completions were reported in the Cooper Pool. Two of the completions extend the proven area one-fourth of a mile to the north. The two best wells were drilled by Continental Oil Co. on the Vaughn permit at the north end of the development. Its No. 14-A-1 Vaughn, C SW SW Section 14-24-36, made 60 bbls. in one hour through a three-fourths inch choke on the 2½-inch tubing with 1,110,000 feet of gas, at a total depth of 3,531 feet. It cut the pay at 3,499-3,531 feet, cemented the 5½-inch at 3,484 feet and ran the tubing to the bottom. The elevation is 3,346 feet. The other Continental completion was its No. 14-A-2 Vaughn, C SE SW Section 14-24-36, an east offset to the completion reported above and a north offset to its No. 1-A Gates. It made 65 bbls. an hour through a three-fourths-inch choke on the 2½-inch tubing with 3,660,000 feet of gas. The pay was at 3,500-15 feet, the latter being the total depth. The 5½-inch was cemented at 3,473 feet and the tubing was run to 3,504 feet. The elevation is 3,348 feet.

Mac L. Coker, engineer for the Texas Railroad Commission at Kilgore, Texas

The other two completions were inside wells in the southern part of the pool. The Texas Co.'s No. 2 Ogg, C NW NE Section 35-24-36, made 22½ bbls. in one hour through the tubing with 27,000,000 feet of gas. The pay was at 3,497-3,541 feet, the latter also being the total depth. The 7-inch was cemented at 3,462 feet and the 2½-inch tubing was run to 3,494 feet. Previous to deepening from 3,477 feet it was treated with 2,000 gallons of acid and tested 1,173 bbls. in 24 hours. The elevation is 3,287 feet.

Phillips Petroleum Co.'s No. 11 Woolworth, C SE NW Section 26-24-36, was completed at 3,490 feet for 48 bbls. an hour with 2,500,000 feet of gas. The pay was at 3,480-98 feet and the 7-inch was cemented at 3,468 feet. The elevation is 3,323 feet. The same company's No. 12 Woolworth, C NE SW Section 26-24-36, a south offset to No. 11 Woolworth, is a near completion. It was drilled to 3,490 feet and a drill stem test at 3,462-90 feet showed 100 bbls. in an hour with 500,000 feet of gas.

Stanolind Test Close to Edge

Stanolind Oil & Gas Co.'s No. 4-A Meyers, C NE SW Section 22-24-36, an outside well on the west side, looks as if it is very close to the edge and is shut down for orders. At 3,608 feet it tested 80 bbls. in one hour, of which 50 per cent was water. It plugged back to 3,531 feet and set packer at 3,450 feet and made 75 per cent water. It then tested at 3,400 feet without results and then drilled out cement to 3,560 feet where it flowed 20 bbls. of oil and 60 bbls. of water in one hour.

The Empire Gas & Fuel Co.'s No. 2 Everett, C SE SW Section 35-24-36, is drilling at 3,415 feet in lime, and its No. 3 Everett, C NW SW Section 35-24-36, is moving in materials. Humble Oil & Refining Co.'s No. 2 Coats, CWL NW NE Section 10-24-36, is drilling at 1,239 feet in red beds. Continental Oil Co.'s No. 15-A-2 Vaughn, C SW SE Section 15-24-36, is still a location. Same company's No. 15-A-1 Vaughn, C SE SE Section 15-24-36, is testing at 3,520 feet from the pay at 3,500-20 feet. No gauge was taken and the oil flowing into the pit was estimated at 5 bbls. an hour with 4,900,000 feet of gas. It may drill deeper. Amerada Petroleum Corp.'s No. 2 Everett, C SE SW Section 26-24-36, is a near completion at 3,438 feet. A drill stem test at 3,405-38 feet showed 500,000 feet of gas in one hour with sprays of oil. The 7-inch was then cemented at 3,420 feet with 200 sacks and it is waiting. Sims Oil Co.'s No. 1 Woolworth, C SE NE Section 35-24-36, is waiting after recementing whipstock at 3,118 feet. Old total depth is 3,406 feet. The Texas Co.'s No. 4 Ogg, C NW NW Section 35-24-36, is drilling at 3,045 feet in anhydrite, and its No. 5 Ogg, C NW SE Section 35-24-36, was drilled to 4,310 feet and in a drill stem test at 3,390-3,410 feet showed 450 feet of oil in one hour. The 7-inch was then cemented at 3,402 feet with 200 sacks and it is waiting on cement. Same company's No. 6 Ogg, C SW SE Section 35-24-36, is rigged and ready to spud.

Jal Area

An important test which will go a long way toward connecting up the Jal and Cooper Pools as one continuous field is nearing completion in the Phillips Petroleum Co.'s No. 1 Worth, C NE NE Section 3-25-36, which gives promise of being a large well. It is bottomed at 3,497 feet in lime and a drill stem test at 3,478-97 feet showed 150 bbls. of oil in one hour with 2,000,000 feet of gas. It was then tested at 3,439-88 feet without results. It is running the 7-inch and will be an early completion. It is located three-fourths of a mile to the southwest of the Empire's No. 1 Everett, C NE SW Section 35-24-36, the nearest producer in the Cooper Pool, and 1½ miles northwest of the Continental's No. 1 Wells, SE NE Section 11-25-36, the nearest producer in the Jal Pool.

The Continental Oil Co.'s No. 13-A-2x Sholes, NW cor. SE Section 13-25-36, which tested 62 bbls. of fluid in 24 hours, one-fourth of which was water, at 3,325 feet, was deepened to 3,375 feet without improving conditions. It was then plugged back to 3,314 feet and is preparing to test again. The Trinity Drilling Co.'s No. 1 Sholes, C NE NE Section 24-25-36, is drilling at 960 feet in red beds. The Texas Co.'s No. 1 Parker, C SW SW Section 29-26-37, began spudding February 24 and is waiting after cementing the 12½-inch at 160 feet with 150 sacks. The Repollo Oil Co.'s No. 2 Gloyd, NW cor. SE Section 12-25-36, is shut down at 2,895 feet in lime where it had gas. Hammond, Inc.'s No. 1 Sholes, SE cor. NW Section 13-25-36, is shut down for water at 1,705 feet, in salt, and its No. 2 Sholes, NE cor. NW Section 13-25-36, is shut down for water at 145 feet in red beds. R. H. Henderson and others' No. 1 Langley, C SE SE Section 8-25-37, had a hole full of water at 760-80 feet and is drilling at 820 feet in red beds.

Eunice Area

Three completions and four new locations marked the principal developments in the Eunice Pool. Gypsy Oil Co.'s No. 3 Bell-Ramsey, C SW SW Section 9-21-36, located between producers, was completed for 1,224 bbls. first 24 hours from the pay at 3,885-3,906 feet, the latter being the total depth, with 1,500,000 feet of gas. The 4¾-inch was cemented at 3,885 feet and the 2½-inch tubing was run to 3,900 feet. The elevation is 3,599 feet.

Another completion was Continental Oil Co.'s No. 18-A-1 Meyers, C NE NE Section 18-21-36, from the pay at 3,837-3,914 feet, the latter being the total depth. It made 35 bbls. in one hour through a three-fourths-inch choke on the tubing, with 1,000,000 feet of gas. The 5½-inch is at 3,800 feet and the 2½-inch at 3,910 feet. The elevation is 3,638 feet. It is a south offset to Gypsy's No. 1 Houston.

The third completion was Continental Oil Co.'s No. 8-A-3 Meyers, C SW SW Section 8-21-36, which made 50 bbls. in one hour through a three-fourths-inch choke on the 2½-inch tubing, with 1,700,000 feet of gas. The pay was at 3,783-3,885 feet. The 5½-inch is at 3,770 feet and the tubing was run to 3,878 feet. The elevation is 3,612 feet.

The new locations, all offsets, are as follows: Tide Water Oil Co.'s No. 4 State-Foster, C NE NE Section 8-21-36; Continental Oil Co.'s No. 20-C-4 State,

C SE SW Section 20-21-36; Continental's No. 20-C-5 State, C SW SW Section 20-21-36; and the Continental's No. 30-A-2 Lockhart, C NE NE Section 30-21-36.

Continental Oil Co.'s No. 30-A-1 Lockhart, C SE NE Section 30-21-36, is testing at 3,957 feet, but no gauge was taken. It is flowing into the pits after acidizing with 2,000 gallons. Same company's No. 9-B-2 Meyers, C SE NW Section 9-21-36, began spudding February 20, drilled to 806 feet, in red beds, and is waiting after cementing the 10¾-inch at 148 feet with 50 sacks. Continental's No. 20-C-3 State, C SE NW Section 20-21-36, is building rig.

Shell Petroleum Corp.'s No. 1-A State (State-Endura), C SE NE Section 12-21-35, plugged back from 4,404 feet to 4,047 feet. Then it plugged back to 3,990 feet and ran the swab six times. The water was lowered 2,000 feet. It is shut down for orders. Same company's No. 1-B State, C NW NW Section 29-21-36, is testing at 3,973 feet, total depth, after treating with acid. It has not been gauged. Atlantic Oil Co.'s No. 1-C State, C SW SE Section 5-21-36, is bottomed at 3,343 feet in lime and fishing for 3,000 feet of drill pipe. Repollo Oil Co.'s No. 1 Adkins, NW cor. SE Section 9-21-36, is drilling at 3,475 feet in lime, and Skelly Oil Co.'s No. 2-B State, C SW NW Section 16-21-36, has cellar and pits completed. Gypsy Oil Co.'s No. 4 Bell-Ramsey, C NW NW Section 9-21-36, is digging cellar and pits. Humble Oil & Refining Co.'s No. 2-B State, C SE NW Section 29-21-36, set the 9⅝-inch at 1,792 feet with 650 sacks and is drilling at 2,110 feet in salt.

Hobbs Area

Noble and others' No. 1 Townsite, CWL NW SE Section 34-18-38, is drilling at 2,905 feet in anhydrite, and Noble & Co.'s No. 3-C State, NE NW SW Section 24-18-37, began spudding February 24 and set the 12½-inch at 217 feet. Shell Petroleum Corp.'s No. 2-D State, C NE NW Section 24-18-37, set the 9⅝-inch at 1,598 feet with 200 sacks and is waiting. National Securities Oil Co.'s No. 1 Linam, NE SE SW Section 33-18-37, is drilling at 4,330 feet in lime.

Lea Area

The Texas Co.'s No. 1 Moore, C NW SE Section 21-20-32, is bottomed at 2,885 feet and running the 8¼-inch at 2,875 feet. R. H. Henderson and others' No. 1 Russell-Steele, C NE NW Section 24-20-33, is shut down at 3,120 feet in salt for repairs, and the Texas Co.'s No. 1 Cole, C NE NE Section 35-19-33, is rigging up combination rotary and cable tools. The Argo Royalty Co.'s No. 1 Burner, SW NE NE Section 6-20-32, is drilling at 1,625 feet in salt, and the Ryan Consolidated Petroleum Corp.'s No. 1 Acree, C NE NW Section 35-20-32, is drilling at 3,142 feet in lime. Anderson & Pritchard's No. 1 Fisher, C SE NE Section 8-20-35, began spudding February 24, set the 15½-inch at 30 feet and is drilling at 70 feet in red beds.

San Simion District

Humble Oil & Refining Co.'s No. 1 Saunders, C NE NE Section 4-22-34, set the 12½-inch at 1,065 feet and is drilling at 1,545 feet in red beds.

Nadine District

Repollo Oil Co.'s No. 1 Arnold, SW NW SE Section 11-20-38, is rigging up rotary at 464 feet.

Maljamar Area

The Maljamar Oil & Gas Co.'s No. 1 Miller, C NW SW Section 23-17-32, is rigging up cable tools.

Eddy County

Getty Oil Co.'s No. 7 Dooley, SW cor. NW Section 24-20-29, Getty Pool, is drilling at 1,280 feet in lime.

One new location was made in the Artesia area in Fred Brainard's No. 1 Brainard, CEL NW NE Section 2-17-28.

Skelly Oil Co.'s No. 1 Dow, C SW SE Section 15-17-31, Maljamar area, was shot with 100 quarts at unreported depth and is estimated good for 30 bbls. natural. Last week it reported an oil show at 3,595-3,600 feet.

Chaves County

A new location in the Roswell district was reported in Spanish Grants' No. 1 fee, SE cor. SW Section 2-8s-23.

Roosevelt County

The Claudell Development Co.'s No. 1 Wilmes, C SW SE Section 21-2s-30, Pomeroy district, which had a show of oil through 3,000 feet of water at 3,678 feet, total depth, set the 5½-inch on top of the Glorietta sand and is preparing to drill in.

San Juan County

Continental Oil Co.'s No. 42, SW NE NW Section 12-29-19, Rattlesnake Field, is drilling at 675 feet close to the objective Dakota.

COLORADO

Boulder County

Leslie R. Steele and others' No. 1 Maxwell, SW NE NW Section 24-1n-71, Boulder district, is drilling at 335 feet.

Jefferson County

The Ruby Hill Oil & Gas Co.'s No. 1 Braden, SE cor. Section 24-4s-69, near Denver, cemented back from bottom at 4,280 feet to the 6⅝-inch at 3,950 feet to stop caving and is drilling out cement at 4,015 feet.

Lincoln County

Consolidated Smelting & Metals Co.'s No. 1 Hancock, NE cor. SW Section 7-17-52, Haswell district, is running the 12½-inch at 1,300 feet, total depth, and is installing new Diesel engine.

Moffat County

Stanolind Oil & Gas Co.'s No. 35-SD Parkinson, SE cor. NE Section 22-4n-92, Iles Dome, topped the Sundance at 3,344 feet, set the 8¼-inch at 3,346 feet with 300 sacks and is coring at 3,363 feet. It will be an early completion. Same company's No. 28-x Parkinson, NE SW SW Section 22-4n-92, has graded road to location. It was stated in this column last week that this well probably would be a deep test. It is learned from official sources that it will go only to the regular Sundance series.

Park County

South Park Oil Co.'s No. 1 State, SE cor. SW Section 16-11-75, Hartsel district, is bottomed at 1,250 feet and reaming the 10-inch from 775 feet to 875 feet.

Prowers County

Trojan Oil & Gas Co.'s No. 1 Lotus Oil, NW NE NE Section 15-23-46, Lamar district, is drilling at 4,950 feet in shale.

Washington County

Akron Oil & Development Co.'s No. 1 Gilcrest, SW SE SW Section 22-3n-53, Fremont Buttes district, 7 miles northwest of the town of Akron, has resumed and is running 200 feet of 12½-inch. This test spudded and shut down in February, 1933, to complete financing. At that time it had a block of 13,000 acres. Local Akron men are interested in the operation and it is reported they have financed the test. The well is located about 3 miles north of a test drilled 15 years ago in Section 2-2n-53, which was abandoned at 4,399 feet after having several shows of oil and gas.

WYOMING

Big Horn County

Ohio Oil Co.'s No. 1 Hoskins, SW cor. Section 14-56-97, Byron Field, which was reported a completion last week at 5,214 feet in the Tensleep, swabbed 20 bbls. an hour through the 2½-inch tubing and is rigging up pumping unit. Crosby & Huntington's No. 1 Denio, Tract 43-C, Section 15-55-97, is recementing the 13⅜-inch at 1,083 feet and will carry the 10-inch. Total depth is 3,000 feet.

The Yale Oil Corp.'s No. 1 Blakesley, NE NW Section 28-49-91, Bonanza district, is drilling at 1,100 feet. Jerome Drumheller's No. 1 Martin, SW SE SE Section 17-49-91, Manderson district, which was reported last January as a completion for 1 bbl. a day from sand at 1,329-41 feet, was deepened to 1,460 feet and plugged back to 1,375 feet and is rigging up for pumping test. California Exploration Co.'s No. 1 Government, C SW SW Section 4-54-94, Spence district, is spudding at 150 feet.

Carbon County

Ohio Oil Co.'s No. 1 Morris, C NW SE Section 6-20-77, Diamond Dome, is drilling at 6,797 feet in streaks of lime, indicating it is near the base of the red beds. Same company's No. 1 Kyle, NE SE NE Section 26-21-79, Medicine Bow district, joint with the California Co., is drilling at 4,736 feet in the Mowry shale. Argo Oil Co.'s No. 1 Johnson-Union Pacific, NE cor. SE Section 5-24-87, O'Brien Springs, plugged back from the Sundance at 3,500 feet and is preparing to shoot and test sand at 2,829-35 feet which showed saturation. Ohio Oil Co.'s No. 10 Harrison & Cooper, NE NW SW Section 35-20-78, Rock Creek, an old well to be deepened from 2,734 feet to test the Sundance, has pulled liner and is ready to begin drilling. Earl W. Reeder, Inc.'s No. 1 Whitford, SW SE SE Section 24-20-84, Overland Dome, is waiting after cementing the 10-inch at 3,595 feet on top of the General Petroleum series. It will change over to cable tools to drill in.

Converse County

Drilling operations on the Shawnee structure are to be resumed as a result of adjustment of differences over acreage, the E. B. Jones interests having acquired some additional holdings from the Jebel Syndicate. Rig is up for E. B. Jones and others' No. 1 Jebel, C N half Section 17-32-69, which will be drilled to the gas horizon at around 600 feet for additional fuel for the deep test. Their No. 1 State, SW cor. Section 16-32-69, spudded to 22 feet last January and shut down. It is standing fully rigged and with boiler connected with No. 1 Teakle, a shallow gas well, and will resume as soon as No. 1 Jebel is completed.

Fremont County

Mid-American Oil Co.'s No. 2 Government, C NE SW Section 14-28-92, Sheep Creek, is drilling at 1,735 feet in red beds.

Natrona County

Bessemer Oil Co.'s No. 8 Government, SW cor. NW Section 18-33-82, Poison Spider district, is waiting after cementing the 8¼-inch at 914 feet.

Niobrara County

Ohio Oil Co.'s No. 2 Agnes Rohlf, near C NE SE Section 32-36-65, Lance Creek, is coring at 3,740 feet for the second bench of the Sundance. It will go to the third bench of that formation. First bench showed saturation. Two Sundance wells heretofore completed in Lance Creek did not go to the second and third benches from which the largest production is obtained in Salt Creek. The Continental Oil Co.'s No. 1 Apex-3, SW NE SW Section 34-36-65, is cleaning out at 3,510 feet. It had 900 feet of water in the Lakota at 3,507-10 feet.

Ed Shogren and others' No. 1-A Olinger, SE NE NW Section 1-36-63, Old Woman Creek, is spudding at 150 feet. Location is 150 feet west of No. 1 which lost the hole at 1,070 feet.

Park County

Garland Oil Co.'s No. 2 Government, SE NE NW Section 14-56-97, on the axis of the anticline in a fault block on the northwestern end of the Garland Dome, was dry and abandoned at 2,166 feet. Sand at 2,130 feet had neither oil, gas nor water. Test was drilled for light oil in the Frontier series.

Rocky Mountain Gas Co.'s No. 1 Oregon Basin Oil & Gas, C SW NW Section 32-51-100, Oregon Basin Field, is drilling at 1,197 feet.

Washakie County

Wyoming Oil & Refining Co.'s No. 1 Frison, NW SW NW Section 14-48-91, Hidden Dome, is drilling at 400 feet.

Weston County

Irene Eaton's No. 14 Government, SW NE SW Section 30-46-63, Osage Field, was completed for 20 bbls. estimated, on the pump without being shot. It cut sands at 1,393-97; 1,406-16; 1,418-22; and 1,435-40 feet and hole filled 1,000 feet. It will not be shot.

MONTANA

Montana Oil Conservation Board report for 1934 shows 1,353 wells in the

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state on production during the year. The producers had 84,637 bbls. of Montana crude in storage at the beginning of the year. Production for the year was 3,611,761 bbls. Of this quantity, 1,582,900 bbls. was consumed in Montana and 1,701,818 bbls. was shipped to Canada and 19,839 bbls. to Wyoming and Minnesota. At the end of the year there were 73,372 bbls. in storage. The transporters had 309,913 bbls. in storage at the beginning of the year and 628,382 bbls. at the close of the year.

There were 21 refineries active in the state during the year. They had in storage at the beginning of the year 230,068 bbls. of Montana crude and 7,690 bbls. of Wyoming crude. They received during the year 1,491,044 bbls. of Montana crude and 1,208,083 bbls. from Wyoming. Barrels refined or lost in handling were 1,425,625 from Montana fields and 1,191,498 from Wyoming. Storage at the end of the year was 295,487 bbls. of Montana crude and 19,175 bbls. from Wyoming.

Glacier County

One small producer was completed in the Cut Bank Field in Fist and others' No. 1 Donen, Lot 10, Block 11, Section 12-33-6w, in the town of Cut Bank. The upper Cut Bank sand at 2,927-44 feet was saturated at 2,940-44 feet. The lower Cut Bank was found at 2,946-87 feet and total depth is 3,005 feet. Oil rose 200 feet in the hole from the 4 feet of sand.

Askins and others' No. 1 Askins, Lot 24, Block 33, Section 12-33-6w, topped the Colorado at 580 feet and cemented the 10¾-inch at 600 feet. The Consolidated Gas Co.'s No. 3 Tribal, NE NW NW Section 34-35-6w, which shut down at 35 feet in January on account of the weather, has resumed and is drilling at 100 feet. Same company's No. 4 Tribal, NE SW NE Section 34-35-6w, is drilling at 700 feet. Gardner-Smith's No. 1 Tweedy, NE NE Section 36-33-6w, is building rig, and Hannah-Porter's No. 1 International Harvester, Lot 7, Block 18, Section 12-33-6w, probably will be abandoned after rigging up, due to poor showings made by the town lot wells. Kately & Kaup's No. 1 Drumheller, Lot 1, Section 10-34-6w, is spudding at 450 feet. Montana Power Gas Co.'s No. 1 O'Brien, C SE SE Section 31-34-5w, cemented the 6⅝-inch at 2,752 feet with 40 sacks, and the Olive Oil Co.'s No. 3 Winkler, NE NW Section 35-35-6w, is drilling at 1,890 feet. Bruce Radigan's No. 1 Connolly, NW SW NW Section 7-33-5w, is shut down at 220 feet, and R. C. Tarrant's No. 1 Connolly, C NE SE Section 31-34-5w, is drilling at 1,380 feet.

Big Horn County

J. W. Goering's No. 2 fee, Lot 5, Block 12, Section 23-1s-32, in the town of Hardin, a first report, is drilling at 550 feet. No. 1 fee was completed recently for 80,000 feet of gas daily.

Pondera County

W. M. Fulton's No. 1 Erickson, SW cor. NW Section 10-27-4w, Pondera Field, a first report, is moving in materials. Conrad Refining Co.'s No. 2 Gjullin, NE SW Section 11-27-4w, is fishing for bit at 700 feet.

Toole County

Monopeg Oils, Ltd., SW NW Section 28-35-1w, Kevin-Sunburst Field, is drilling at 620 feet, and W. M. Fulton and others' No. 1 Halter, NE cor. SE Section 17-35-2w, is drilling at 1,420 feet.

Miscellaneous Notes

The Colorado Gas Conservation Commission, of which Warwick M. Downing is chairman, held a meeting March 6 to discuss the oil states compact at which the outcome was a decision to prepare two bills to be submitted to the governor, one for approval of the compact and the other providing for regulation and conservation along with power to enter into an agreement with other states. Upon the governor's stand probably will depend which bill will go before the legislature.

The Montana Oil Conservation Board will hold a meeting shortly to act upon a proposal to set state allowables for the various pools.

UTAH

Utah had two important news developments, one of a tragic nature in the killing of 10 persons in an oil field accident in Washington County, and the other a report of plans for the establishment of a large industry in that state as a result of the discovery of a gas field in Emery County recently by the Ramsey Petroleum Corp.

Press dispatches reported that 10 persons were killed near St. George, in Washington County, as a result of a premature explosion in the Arrowhead Petroleum Co.'s well. Charles D. Alsop, manager of the company and in charge of the operation, and his wife were among those killed. The Arrowhead company had two operations under way and it is not certain which of these was the scene of the accident. Its No. 1-A, SE SW NE Section 1-43-15, Punchbowl district, was reported early in January to have on hand a bad fishing job at 875 feet, the bit being in the hole. The other, its No. 2 Escalante, NW cor. NE Section 19-43-15, was reported at the same time drilling at 4,200 feet. This well was in an oil sand at 4,105 feet.

The other report was to the effect that as a result of the opening of a new gas field in Emery County, on the Last Chance structure, in the Ramsey Petroleum Corp.'s No. 1 Senior-Weightman, SW NE SW Section 13-26-7e, it is expected that the Bohn Aluminum Corp. in association with the Ford Motor Co. of Detroit, will use natural gas in the development of what is said to be one of the largest sources of aluminum and potash in North America. This deposit is at Marysville, Utah, and it is stated that the development will cost in excess of $15,000,000, employ 10,000 men and use 60,000,000 feet of gas a day. The Bohn company is an eastern concern engaged in the fabrication of aluminum products and its stock is listed on the New York Stock Exxchange. Mr. Bohn was quoted by the Salt Lake Mining Journal as admitting there was something to the report, but that he had nothing to give out for publication.

The Ramsey well, drilled under a contract with the American Oil Corp., of Los Angeles, of which J. W. Weightman is president, was drilled to 3,168 feet, where drilling was discontinued 700 feet above the top of the objective Pennsylvanian formation on account of the reduced size of the hole. The well gauged 21,000,000 feet of gas a day at 2,773 feet. Below that depth it encountered more gas which threatened to clear the hole of mud. Total is estimated at 30,000,000 to 40,000,000 feet a day. The well will be plugged back to the gas sand at 2,775 feet. Another test will be drilled nearby with rotary to go to the Pennsylvanian and Mississippian. The Pennsylvanian shows oil at outcrops on the flanks of the structure and the test well had a show of oil at 2,800 feet, but did not get down to the objective.

Kansas Fields

(Continued from Page 78)

Voshell Pool, McPherson County, was completed. It pumped 266 bbls. of oil and 9 bbls. of water in 24 hours from Wilcox sand at 3,406-21 feet.

Marathon Oil Co. completed No. 2 Chindberg, SW SE SE Section 13-19-3w, McPherson district. It pumped 87 bbls. of oil and 160 bbls. of water in 24 hours from Chat at 2,985-3,047 feet.

Rice County

Sinclair Prairie Oil Co. completed No. 1 Specht, SE NE SE Section 20-20-10w, Raymond Pool, Rice County. It was acidized in Siliceous lime at 3,289-95 feet, and pumped 403 bbls. of oil in 24 hours.

Empire Oil & Refining Co.'s No. 2 Proffitt, NW NE SE Section 6-20-9w, Chase Pool, was completed in Siliceous lime at 3,248-58 feet. The lime was acidized and the well pumped 1,609 bbls. of oil in 24 hours. Same company moved in material for No. 4 Proffitt, NE NW SE Section 6, and No. 5 Proffit was drilling at 2,720 feet.

Keith and others' No. 2 Grove, SE NE NW Section 29-19-9w, in the Grove Pool, pumped 1,016 bbls. of oil in 24 hours after an acid treatment in Siliceous lime at 3,226-51 feet. It was completed.

Shell Petroleum Corp. completed No. 2 Tournear, NE NW SE Section 29-19-9w, in Siliceous lime at 3,217-35 feet. It pumped 1,325 bbls. of oil in 24 hours without an acid treatment.

Texas Co. had rig up for No. 8 Grove, SE NE NE Section 29-19-9w.

Barton County

Treleaven & Brimm and others completed their wildcat discovery well in Barton County, No. 1 Haas, SW cor. Section 30-18-15w. It pumped 320 bbls. of oil in a 24-hour test, producing from a pay at 3,603-13 feet.

Schermerhorn has cellar dug for No. 1 Schroeder, NE cor. Section 36-18-16w, Rush County, a southwest offset to the Treleaven & Brimm well.

Russell County

Central Petroleum Co.'s No. 1 Dortland D, SW SE NW Section 4-14-15w, Russell County, swabbed 12 bbls. per hour from Oswald lime at 3,051-60 feet, but was not yet completed.

The same company was building rig for No. 2 Dortland D, SE SE NW Section 4-14-15w.

Gypsy Oil Co. was building rig for No. 1 Neidenthal, SE cor. Section 14-14-15w.

Lario Oil & Gas Co. and Texas Co. had a hole full of oil in No. 1 Boxberger, NW cor. Section 24-14-15w from Siliceous lime at 3,263-64 feet, total depth.

Ashby and others had rig up for No. 1 Burns, SE SE NE Section 12-13-16w.

E. K. Carey and others' No. 1 Reeds, NW NW SW Section 34-13-14w, swabbed 10 bbls. of oil per hour from Siliceous lime at 3,306-11 feet.

There were no completions during the week in Russell County aside from a dry hole of the Eldorado Refining Co.'s No. 1 Walz, SE NE NW Section 29-13-11w, a wildcat. It was a hole full of water at 3,439-41 feet, and was abandoned.

Rooks County

Stearns & Streeter and others' No. 1 Hoskins, SE SW SE Section 34-9-16w, Rooks County, opened a new productive spot in Rooks County. It was acidized in Oswald lime at 3,084-3,106 feet, and pumped 120 bbls. of oil in 24 hours. It was not completed.

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TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the question is considered to be confidential.

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Determining Phenol in Refinery Waste or For Solvent Control

I should like to obtain a method for the determination of phenol content in refinery effluents. The results obtained by methods for the examination of pure phenols have not been satisfactory, so a procedure adapted to washes, residues, etc., would be appreciated.—F. L.

The methods outlined below have been suggested for the examination of refinery wash-waters and are applicable for control when phenol is used for the purification of lubricating stocks.

Phenol Free and Combined. Weigh 100 grams of the sample into a 500 cc. Florence flask. Add 50 cc. of 30° lye (NaOH) and 200 cc. of naphtha. Reflux for two hours. Pieces of glass tubing, pumice stone, etc., may be used to prevent bumping. After refluxing let settle until the lye is cool, then remove a portion with a pipette and filter through a dry filter. Use 1 cc., representing 2 gm. of the sample, for the determination.

To the 1 cc. sample, in a 500 cc. stoppered Erlenmeyer, add 100 cc. of 10 per cent HCl. To this add 10 cc. (or an excess) of N/10 sodium bromate solution and shake for two minutes. Add about 10 cc. of 10 per cent KI solution. Titrate with N/10 sodium thiosulphate solution, with starch indicator toward the end.

$$\text{Per cent phenol by weight} = \frac{0.157 \times (10 - \text{sodium thio. titration})}{2}$$

Each 79.92 gm. Br requires 1/6 mol phenol, or 15.66. This is equivalent to a titration value of 0.00157 per cc.

Reactions—

$$5\,NaBr + NaBrO_3 + 6\,HCl = 6\,Br + NaCl + 3\,H_2O$$

$$C_6H_5OH + 8\,Br = C_6H_2OBr_4 + 4\,HBr$$

$$C_6H_2OBr_4 + 2\,KI = C_6H_2\,OBr_2OK + KBr + 2\,I$$

Phenol in Treated Oil. Into a 50 cc. stoppered graduate measure 23 cc. oil, approximately 20 grams; add 20 cc. 30° lye and shake for two minutes. Heat on a steam bath until the emulsion breaks. Pipette 5 cc., equivalent to 5 grams of oil, of the lye into a 500 cc. Erlenmeyer flask and proceed as in the first method.

$$\text{Per cent phenol} = \frac{0.157 \times \text{difference in titrations}}{5}$$

Phenol in Wash or Waste. (a) Qualitative test. Add 10 drops of Millon's reagent (solution of mercuric nitrate containing nitrous acid) to about 20 cc. of the water in a large test tube. Heat on a steam bath for 15 minutes. The intensity of the red coloration serves as an indication of the quantity of phenol present.

(b) Quantitative test. Use 2 cc., or more, of the sample and tirate as in the above two methods.

$$\text{Per cent phenol} = \frac{0.157 \times \text{difference in titrations}}{\text{cc. of sample}}$$

Phenol from Recovery Coil. (a) Melting point. Melt the phenol in hot water, pour a sample into a narrow test tube and stopper with a cork fitted with a thermometer, which shows from about 70° to 110°F. While cooling move the tube to cause the phenol to slowly flow from end to end. When the crystals have gathered into a slushy mass the temperature will remain about stationary. This is recorded as the melting point.

(b) Per cent oil in phenol. Weigh 20 grams of molten phenol into a 100 c.c. glass stoppered flask with the neck graduated in tenths of a cc. Then add 30° lye solution until the level of the liquid is in the graduated neck. Agitate vigorously for a minute and place in steam bath for 15 minutes. The oil will rise to the top, so the volume may be read in cc's.

Per cent of oil = cc. x 5.

Per cent moisture in untreated oil. Use A.S.T.M. Method—D-95-30 with the exceptions of

1000 cc. flask.

400 grams oil.

400 cc. naphtha.

Reflux for two hours or until all the moisture has been distilled. The indication divided by four represents water.

Dyes for Coloring Gasoline and Their Stability

What dyes are used for coloring gasoline? Will all of the dyes used in this way stand up if there is excess sulphur, traces of acid, or caustic present?—H. C. M.

A list of oil soluble dyes was given on this page in the issue of February 9, 1933, as selected from the article by Egloff, Morrell and Truesdall, The Oil and Gas Journal, March 5, 1931. For convenience this list is repeated.

DYES FOR GASOLINE

Color	Dye name—	Quantity (lbs./ 1,000 bbls.)	Fading time (hours)
Red	Oil Red No. 322 ..	1.43	+50
	Oil Red Y292	1.57	+50
Blue	Oil Imported Blue	1.40	+50
	Oil Blue MG	2.45	+50
Yellow	Oil Yellow AX ...	7.50	+50
	Oil Yellow No. 21.	7.50	+50
Green	Oil Green DS180..	7.50	+50
	Gaso Green 2737..	0.42	+53
Orange	Oil Orange	2.10	+50
	Oil Orange AU ..	0.83	+50

Dyes are chemical compounds which may be expected to be subject to change in color when treated with acids, alkalies or sulphur. Just what will be the behavior of the dyes that have been mentioned when placed in contact with those chemical reagents cannot be determined without making actual tests. Some reds change to blue in the presence of acids, others to brown and some become colorless. Similar color changes are known for many dyes. Some dyes are stable to both acid and alkaline solutions. Many show no change in the presence of free sulphur.

The question suggests an abnormal condition, because a properly refined gasoline will contain no free sulphur, acid or alkali.

Blends of Alcohol and Gasoline Not Practical Motor Fuel

I would appreciate any information you may have regarding the blending of alcohol with gasoline to be used for motor fuel.—T. T. S.

Several years ago there was a serious discussion relating to the use of alcohol in the United States for motor fuel. The conclusion reached was that the idea was not sound because alcohol is not produced in sufficient volume and the selling price would be too much above that of gasoline. In addition, there are some performance objections to blends of alcohol and gasoline when used for motor fuel.

Alcohol is produced in large quantities in some countries where there is no petroleum produced and the imported gasoline sells at a high price. Certain of these require alcohol to be blended with the imported motor fuel. Such mixtures are used in Australia, Brazil, Cuba, France, Germany, Italy and England.

The quantity of alcohol reported to be blended with gasoline in these countries varies from a few per cent to 90 per cent. The source of the alcohol is largely molasses, but potatoes and the grains are also important raw materials.

The subject was discussed in more detail on this page in the issues of March 2 and 16, 1933; and November 9, 1933.

Naphthas and Other Petroleum Products Repell Insects

Have you the information available as to the bad results that could take place from the use of naphthas or Stoddard solvents, containing a large amount of gum-forming or organic substances, and also the attraction of moths thereby?—N. R. F.

The several petroleum products are insect repellants and most of them destroy insects when brought in contact with the soft parts of the bodies and also kill by asphyxiation. It is because of these facts that petroleum oils are so extensively used for the control of destructive insects. The naphthas are especially valued for domestic use as sprays against flies, mosquitoes and moths.

The quantity of gum that may be present in a naphtha would not be sufficient to be considered either way, but if there were large quantities present the gum would act to repell and kill; it would not attract moths. The moths that destroy textile materials would be attracted by natural oils and greases, but these would have no place in a naphtha.

Composition of Natural Gas and Coal Compared

Can you supply a representative or average analysis of natural gas as distributed to consumers? A similar summary of the composition of coal would be appreciated.—E. M. B.

Natural gas, as marketed, is reasonably close to constant composition with the heating value about 1,000 B.t.u. per cubic foot. The approximate weight of natural gas is 1 pound per 20 cubic feet. An average of many analyses of natural gas will fall within the limits indicated in the table.

AVERAGE COMPOSITION OF NATURAL GAS

	Volume pct.
Methane	80-85
Ethane	6-10
Propane	trace- 3
Butane	trace- 2
Nitrogen, carbon dioxide, etc.	trace-10
Moisture	trace
Heat value, B.t.u./cu. ft.	1,200

Representative analyses of natural gas as supplied to cities are given in the table.

COMPOSITION OF NATURAL GAS AS SUPPLIED TO CITIES
Per Cent by Volume

City—	Methane	Ethane	Carbon dioxide	Nitrogen
Pittsburgh ..	84.7	13.7	...	1.6
Cleveland ...	80.5	18.2	...	1.3
Cincinnati ...	79.8	19.5	...	0.7
Columbus ...	80.4	18.1	...	1.5
Bartlesville .	92.4	3.1	1.4	3.1
Kansas City..	84.1	5.7	0.8	8.4
Fort Worth .	51.5	10.2	...	38.3
Los Angeles .	77.5	16.0	6.5	0.0
Little Rock .	96.7	...	1.0	2.3
Monroe, La. .	94.7	2.8	0.2	2.3

Coal, as marketed, varies so in composition, and there are so many grades of coal that frequent analyses of shipments must be made if even an approximate idea of composition is required. An inspection of any tabulation representing coal of different origin will plainly show the difference in the composition of coal. An average of eight samples of coal from seven different states is represented in the following analysis:

ANALYSIS OF COAL
Average of Eight Samples

	Pct.
Carbon	74.97
Hydrogen	4.61
Oxygen	5.93
Nitrogen	1.49
Sulphur	2.13
Ash	10.90
Water	5.02
B.t.u./lb.	9,000-14,000

Numerous samples of coal have been examined by the U. S. Geological Survey and the Bureau of Mines; the analyses given in the table, from the publications of these departments, may be considered as typical of that supplied to consumers.

REPRESENTATIVE ANALYSES OF COAL
Per Cent by Weight

State—	Moisture	Ash	Sulphur	B.t.u. per lb.
Alabama	3.8	12.8	1.5	12,980
California	7.0	6.2	4.2	13,450
Kentucky	11.8	9.4	3.3	11,150
Missouri	18.5	9.9	4.1	10,040
Illinois	10.3	12.5	3.7	11,080
Oklahoma	4.1	10.3	6.1	12,920
Pennsylvania ..	2.8	7.8	0.9	13,300
Pennsylvania ..	1.0	9.1	2.7	13,950
Tennessee	4.3	7.5	0.6	13,630
Virginia	2.8	9.0	1.4	13,490
Wyoming	14.4	7.2	4.9	10,250

PERSONAL PARAGRAPHS

PETER EVANOFF has returned to Lovell, Wyo., from a trip to Charleston, W. Va., and Washington, D. C.

* * *

C. W. SPARR, of Casper, Wyo., president of the Jupiter Oil Company, has left for an extended trip to Mississippi.

* * *

DR. W. R. ORMANDY has been compelled, owing to ill health, to resign from the council of the Institute of Fuel.

* * *

WYLIE MOORE, president of the Wofford Oil Company, of Atlanta, Ga., has been re-elected president of the Atlanta Chamber of Commerce.

* * *

SIR JOHN CADMAN, G.C.M.G., chairman of the Iraq Petroleum Company, Ltd., is back in London, England, at the completion of his trip to Australia and Iraq.

* * *

WILLIAM SMOOTS has been transferred to the headquarters of Phillips Petroleum Company at Bartlesville, Okla., from the Breckenridge, Tex., offices, where he was land man.

* * *

H. N. PARDEE, assistant manager of the Oklahoma-Kansas-Kentucky division of the Texas Company, is being treated for stomach ulcers in the Mayo Sanitarium at Rochester, Minn. His condition is improving.

* * *

O. B. WILSON, district manager for the Brown Instrument Company, is spending several days in Chicago on business.

* * *

R. C. POWELL, chief engineer of the refining department of the Texas Company, New York, has been at the Houston, Tex., offices of the company for several days.

* * *

G. L. GRIFFIN, manager of the oil and gas division of the Chapman Valve Manufacturing Company of Indian Orchard, Mass., is spending several days in Houston, Tex.

* * *

A. M. BUTCHER, representative for the Boston Woven Hose Company, in the Mid-Continent fields, with headquarters at Tulsa, is on a special business trip to California.

* * *

DR. R. L. HUNTINGTON, associate professor of petroleum engineering at Oklahoma University, was in Tulsa attending the divisional meeting of the American Chemical Society, and spent Sunday in Enid, Okla.

* * *

C. K. WEST, of Pitzer & West, and the Chemical Process Company, Breckenridge, Tex., has returned to his home after being laid up in a Fort Worth, Tex., hospital from complications, resulting from influenza.

* * *

C. J. BROWN, vice president and general manager, Merco Centrifugal Separator Company, Ltd., San Francisco, Calif., is making a trip through the Mid-Continent fields in the interests of his company.

* * *

W. S. HILL, land man for the Continental Oil Company, has been transferred from Palestine, East Texas, to Ada, Okla. EARL PAYNE has been assigned to the West Texas district, as scout for the company, at Midland.

RAOUL VOMANOUX, of Batum, Russia, has been spending a week in Los Angeles, Calif., looking over oil field development and investigating improved equipment.

* * *

HOLLIS P. PORTER and wife, consulting mechanical engineer, and chairman of the Mid-Continent Section, American Society of Mechanical Engineers, Tulsa, have been in New Orleans, La., for the Mardi Gras.

* * *

FRANK BRYAN, geologist of Waco, Tex., addressed the Fort Worth Geological Society at Fort Worth, Tex., on "The Archaeology of Central Texas and Its Bearing on the Age of the Balcones Fault." S. H. CASTEEL is president of the Fort Worth society.

* * *

A. J. EDWARDS, sales manager, Tulsa, and G. E. RAYMOND, chief engineer, Oklahoma City, Okla., both with Black, Sivalls & Bryson, Inc., have been making a tour of West Texas and New Mexico fields, the former going to the Gulf Coast on his extended tour.

* * *

HARRY C. MOREHOUSE, manager of the machinery division, and L. A. RAWSON, manager of the derrick division, have been elected members of the board of directors of Emsco Derrick & Equipment Company, succeeding LIVINGSTON B. KEPLINGER and W. A. DeRIDDER, who have resigned.

GOVERNOR ALLRED of Texas has appointed MAJ. J. R. PARTEN, independent oil man, as a member of the Board of Regents of the University of Texas.

* * *

THOMAS J. ALLISON, of Tulsa, lost his right arm in a field accident near Muenster, west of Gainesville, Tex. He was taken to a hospital at Gainesville, where his condition was said to be critical.

* * *

P. L. BROOKS, sales manager for the Parkersburg Rig & Reel Company, Parkersburg, W. Va., visited the Dallas, Tex., district office during the past week on his trip through the Mid-Continent and Texas.

* * *

C. J. BROWN, vice president and general manager, Merco Centrifugal Separator Company, Ltd., San Francisco, Calif., is a visitor in Tulsa and making a survey of the Mid-Continent district in the interests of his company.

* * *

FRANK L. CHASE, vice president of the Lone Star Gas Company, Dallas, Tex., has been appointed to the new federal commission which is known as the Advisory Board of the U. S. Bureau of Mines, by HAROLD L. ICKES, Secretary of the Interior. The board, consisting of representatives of all branches of the mineral industry, will function as an advisory body to the chief of the bureau.

* * *

W. K. HOPKINS, of the Union Oil Company, has been appointed manager of industrial relations and personnel.

* * *

BRYAN W. PAINE, president of the Iowa-Paine Oil Company at Tyler, Tex., was a recent business visitor to Houston, Tex.

* * *

C. E. STALKER and associates have been granted a charter for the Pen-Tex Petroleum Company and will open offices in Houston, Tex.

* * *

MILO ORR has been placed in charge of the office which Superior Oil Producing Company of California has opened at Laredo, Tex.

* * *

HENRY LEA, geologist for the Rio Oil Company at Fort Worth, Tex., spent a few days in San Antonio, Tex., on business the past week.

* * *

J. ROBY PENN, president of the Texas Pacific Coal & Oil Company, Fort Worth, Tex., has returned from a business trip to points in California.

* * *

NEAL H. ANDERSON, president of the Oil Producers Agency, and RUSH BLODGET recently addressed a general meeting of oil producers at Taft, Calif., and another meeting at Coalinga, Calif.

* * *

M. M. WATKINS, foreign manager for the Brown Instrument Company, with headquarters at Philadelphia, Pa., spent a few hours in Houston, Tex., last week on his return from an extended business trip to Mexico.

* * *

W. F. CEREGHINO, superintendent of refineries for the Shamrock Oil & Gas Company, has returned from Tulsa where he has been recuperating in a hospital from injuries sustained in an automobile wreck on November 11.

DO YOU REMEMBER?

From The Oil and Gas Journal Files

25 Years Ago

March 12, 1910

The posted price of Oklahoma crude oil is 33 cents per barrel, but a price rise is expected soon, as some refiners are paying premiums as high as 5 cents per barrel. The collapse of the Hamilton Switch (or Preston) Pool is one reason for the strengthening of the price structure.

D. F. Connolly has sold his valuable holdings in the Glenn Pool and his friends are urging him to take up a political career in Oklahoma. He is regarded as good material for Congress.

Bill Besser, the portrait painter, who has immortalized numerous Oklahoma and Texas oil men on canvas, writes from Santiago, Chile. He says he painted a lot of Argentinans, but that the Chileans can't afford it.

20 Years Ago

March 11, 1915

The first well drilled by the Carter Oil Co. on its recently acquired Cushing Field property in Oklahoma, starts off at 2,300 bbls. It is No. 18 Lizzie Yarhola, in Section 8-18-7.

The owners of the original lease on the Osage Nation, 1,500,000 acres in extent, are fighting to retain possession of it by renewal, in hearings before Secretary Lane of the Interior Department. The Barnsdall Oil Co. has drilled about half the wells on the big lease and in six years had spent $6,500,000 on the property.

Dr. Walter Ritman, a young government scientist, explains his cracking process of obtaining gasoline, and says it can be used to obtain toluol and benzol.

Gasoline sells for 15 cents per gallon in Oklahoma, with no tax. It sells for 12 cents in Texas, no tax, which causes marketers to do some explaining. The Magnolia Petroleum Co.'s explanation, through A. C. Eby, is that the price in Texas is too low.

10 Years Ago

March 12, 1925

Casting their eyes over the world, certain "experts" in oil say that while the United States now produces 71 per cent of the world's production it has remaining only 16 per cent of the oil left in the ground.

The Gypsy Oil Co. and Gulf Pipe Line Co. of Oklahoma move into their new offices in the First National Bank Building in Tulsa.

F. H. Stover, a driller for the Fort Norman Gas Co. in northwestern Canada, says the drilling crew found 42 feet of frozen ground when spudding in a well up there.

F. A. Pielsticker, vice president of Skelly Oil Co., is again elected president of the Western Petroleum Refiners Association.

W. J. HUSSEY, of Petrolia, Ontario, is drilling a test for salt at the Warwick salt block in Lambton County.

* * *

D. M. McCARGAR, district manager, Allis-Chalmers Manufacturing Company, Tulsa, was in Dallas, Tex., on business last week.

* * *

MR. and MRS. JOHN A. SUTHERLAND, Negritos, Peru, announce the birth on February 10 of a son, JOHN DOUGLAS SUTHERLAND.

* * *

GEORGE S. BERRY, assistant land man for the Sinclair Prairie Oil Company, Houston, Tex., spent several days in San Antonio, Tex., on business.

* * *

WALLACE E. PRATT, vice president of the Humble Oil & Refining Company, Houston, Tex., and MRS. PRATT, have returned from a visit to New York.

* * *

C. B. WRIGHTSMAN, JR., president of the Standard Oil Company of Kansas, with headquarters at Houston, Tex., has returned with MRS. WRIGHTSMAN after spending several weeks in Florida.

* * *

JACK McKAY, of the International Petroleum Company staff in Peru, is returning to Alberta, to superintend the construction of a new gasoline absorption plant for the Royalite Oil Company in the Turner Valley Field.

* * *

DR. FREDERICK D. ROSSINI, of the National Bureau of Standards, Washington, D. C., has been appointed director of the American Petroleum Institute Research Project 6 on the Isolation and Identification of Hydrocarbons in Petroleum. This project was formerly directed by the late DR. E. W. WASHBURN.

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ROBERT CRICHTON, a director of Scottish Oils, Ltd., is visiting Australia, and is understood to be investigating the possibilities of developing oil shales there.

* * *

SIR F. VERNON THOMPSON, K.B.E., director of London and Thames Haven Oil Wharves, Ltd., has been nominated vice president of the council of the Chamber of Shipping of the United Kingdom.

* * *

K. G. MACKENZIE, the Texas Company, New York, has been appointed chairman of the American Petroleum Institute's Committee on Testing Methods and Specifications by R. E. HAYLETT, chairman of the Institute's Central Committee on Refinery Technology.

* * *

WILLIAM B. HAMILTON, veteran oil driller, celebrated his eighty-fourth birthday at Sarnia, Ontario. He first came to the Petrolia Field in 1872 and drilled in the United States and Canada till 1900. He spent three years with an oil firm in London, England, and later worked for the Royal Dutch Oil Company in Borneo.

* * *

R. E. HAYLETT, chairman of the American Petroleum Institute's Central Committee on Refinery Technology, has appointed C. E. TOWNSEND, Sun Oil Company, Philadelphia, Pa., chairman of the Institute's Committee on Fire Prevention in Refineries. D. V. STROOP, American Petroleum Institute, New York, remains secretary.

* * *

R. P. JACKSON, of Great Falls, Mont., secretary of the Montana Oil Conservation Board, was in Casper, Wyo., attending the special meeting of the directors of the Rocky Mountain Oil and Gas Producers Association for consideration of the bill introduced in Congress by SENATOR O'MAHONEY and REPRESENTATIVE GREEVER to amend the leasing law.

Left Insurance Business for Petroleum

I. A. O'Shaughnessy, president of the Globe Oil & Refining Company, began his business career in the insurance field, but it did not take him long to get into the more congenial atmosphere of oil.

I. A. O'SHAUGHNESSY

Mr. O'Shaughnessy was born in 1885 in Stillwater, Minn., where he acquired his early education, later attending St. Thomas College in St. Paul. Following graduation he was secretary of the college for several years. He took an active part in athletics, and was captain of the football team. A few years in insurance followed. Then he moved to Wichita, Kans., and organized the Globe Oil & Refining Company in February, 1917, building a refinery in Blackwell, Okla.

In 1927 Mr. O'Shaughnessy organized the Lario Oil & Gas Company as a producing organization to supply the Globe's constantly increasing demand for crude oil. In 1928 he organized the Globe Oil & Refining Company of Delaware, which owns a 10,000-barrel refinery in Cushing, Okla. The next year he organized the Globe Oil & Refining Company of Illinois, and acquired the refining properties of the Lemont Refining Company in Lemont, Ill.

To absorb the increasing production developed by the Lario Oil & Gas Company in Kansas, Mr. O'Shaughnessy organized the Globe Oil & Refining Company of Kansas in 1932, to operate and control the 10,000-barrel refinery built in 1933 in McPherson, Kans.

Mr. O'Shaughnessy resides in St. Paul, Minn., and divides his time between his home there, his Chicago office, and his Mid-Continent properties. He has an orange grove in Florida and he and Mrs. O'Shaughnessy usually spend their winters there. He has kept up his interest in sports and likes to fish. He has five children.

W. F. KRUSE, in charge of the first aid station at the Muskogee, Okla., refinery of the Pure Oil Company, has been training producing crews of the company over the southwestern producing division.

* * *

W. M. McFARLAND, secretary-treasurer of the Independent Eastern Torpedo Company, has returned to Tulsa from Halstead, Kans., accompanied by MRS. McFARLAND who recently underwent a major operation there.

* * *

THOMAS KNAPP, member of the Mount Pleasant, Mich., staff of the oil and gas division of the Michigan Conservation Department, has been named a special deputy to devote his entire time to fire prevention in Central Michigan oil fields.

* * *

A. R. WILSON, of Denver, Colo., division manager of the Rocky Mountain region of the Texas Company, C. F. NICKOLS, division superintendent for the company with headquarters at Craig, Colo., and FRED MANNING of the drilling contracting firm of Manning & Terry, were recent visitors in Casper, Wyo.

* * *

MRS. I. D. FAIRCHILD, Lufkin, member of the University of Texas Board of Regents, has been appointed a member of the board for mineral development of university lands, by the regents. She succeeded LESLIE WAGGENER, resigned from the leasing board, and will serve with BEAUFORD JESTER, regent, and LAND COMMISSIONER J. H. WALKER.

* * *

A. V. BOURQUE, secretary of the Western Petroleum Refiners Association, returned to Tulsa late last week following the burial of his father in Fort Worth, Tex., only to be called to the bedside of HOWARD BENNETTE, president of the association and National Refinery Allocator. Mr. Bourque remained with MRS. BENNETTE and daughter when Mr. Bennette passed away in the Mayo Clinic in Rochester, Minn., on Sunday.

M. W. RICHARDSON, Tulsa, of the Richardson Petroleum Company, spent a couple of days in Houston, Tex., on business.

* * *

MUNSON BURTON, vice president and treasurer of the Swan-Finch Oil Corporation, New York, has retired from active duty as an official of the company.

* * *

DAVE CREDILLE, of Wainwright, Alberta, is working on the Tenwell Oil & Gas Company test at Vermilion, Alberta. Mr. Credille's house at Wainwright, with furniture, a number of valuable drilling and geological records and a motor truck, were destroyed by fire recently.

* * *

WILLIAM MOELLER, JR., president of the Pacific Coast Gas Association and a member of the American Gas Association's Measurement Committee, discussed a "Proposed Revision of Gas Measurement Procedure" at the recent meeting of the California Natural Gasoline Association.

* * *

MAX BALL and B. O. JONES, of Denver, Colo., are in Edmonton, Alberta, conferring with the provincial government in regard to their proposed development of the tar sand deposits of northern Alberta. Mr. Ball has been in Toronto and Ottawa recently in connection with the same project.

* * *

WILLIAM MORGAN, V. R. G. WILBUR, THOMAS J. CASEY, RUSH BLODGET and ROBERT M. PEASE have been appointed members of a committee of the Oil Producers Agency of California to draft and submit amendments to the proposed legislation involving crooked hole drilling and other amendments to existing legislation now before the California legislature.

* * *

WILLIAM F. LOWE, secretary of the Natural Gasoline Association of America, left Tulsa March 10 for Washington, D. C. He will return by way of Chicago and Ann Arbor, Mich., in the interest of completing plans for the annual convention of the association in May.

* * *

G. ELLIS OLLER, field engineer, Parkersburg Rig & Reel Company, Odessa, Tex., was married at 8 p.m. March 6 to MISS MILDRED E. HOOKER, of Mount Pleasant, Mich., at the Boulder Avenue Methodist Church, Tulsa. After a short honeymoon the newlyweds will make their home in Odessa, Tex.

* * *

PROF. HUGH S. TAYLOR, of Princeton University, will speak on the "Chemistry of Deterioration," at a meeting of the New York district of the American Society for Testing Materials, Thursday evening, March 14. Professor Taylor was formerly chairman of the Central Petroleum Committee of the National Research Council.

* * *

W. H. ABELE, formerly with the Carter Oil Company at Oklahoma City, Okla., is now sales representative for Link-Belt Company in Oklahoma and Kansas, with headquarters at Oklahoma City. Mr. Abele is working out of the Houston, Tex., office of the company, which is under the supervision of FRED PETE WALLACE.

* * *

H. M. HANCOCK, superintendent, inspection department, Atlantic Refining Company, headed the Philadelphia committee in charge of the regional meeting of the American Society for Testing Materials, held in that city, to discuss paints and paint materials. Other members of the committee were L. G. WILSON, W. H. FULWEILER, J. W. SIDEBOTHAM, JR., C. N. FORREST, W. T. PEARCE, A. R. WILSON, G. H. WOODROFFE, HAROLD FARMER, N. L. MOCHEL, J. C. GENIESSE, G. H. CLAMER, and ALEXANDER FOSTER, JR.

NATURAL GAS DEVELOPMENTS

Government Files Suit on Panhandle Eastern Co.

WILMINGTON, Del., Mar. 11.—The Federal Government has filed injunction proceedings in U. S. District Court under the antitrust laws against the Columbia Gas & Electric Corp., one of its subsidiaries and eight individuals connected with the two corporations or with the Panhandle Eastern Pipe Line Co.

The Government's suit charged that the defendants conspired to restrain commerce in natural gas and that the defendant subsidiary, the Columbia Oil & Gas, through stock and bond acquisition of the Panhandle Eastern Pipe Line, dominates that company and has caused Panhandle to refuse to sell and deliver natural gas to many municipalities and private corporations in Kansas, Missouri, Illinois, Indiana and Michigan. The individual defendants named are either voting trustees of the common stock of the Panhandle company or officials of the two defendant corporations.

Panhandle has been losing money through the alleged domination, the Government charges, and cannot pay its debts.

The defendant companies, the bill of complaint continues, acquired stocks and bonds of Panhandle so that Columbia Gas could acquire "complete, absolute and permanent domination and control" of Panhandle and its property and commerce in natural gas. This situation, the Government continues, prevents Panhandle from competing with Columbia Gas & Electric in the natural gas industry.

The individual defendants are George H. Howard, Philip G. Gossler, and Edward Reynolds, Jr., all of New York; Charles A. Munroe, Chicago; George W. Crawford, Thomas B. Gregory and John H. Hillman, Jr., all of Pittsburgh, and Burt R. Bay, Kansas City, Mo.

The Government asks the court to adjudge the acquisition of the Panhandle stock and bonds in violation of the Sherman and Clayton antitrust acts, enjoin the defendants from controlling and interfering with Panhandle, and to order Columbia Oil to divest itself of its Panhandle holdings.

On September 17, 1930, the Government complaint alleges, Columbia Oil & Gas obtained 50 per cent voting stock of Panhandle, and a large part of the share capital of Panhandle—to the extent of $20,000,000 in bonds with a first mortgage lien. Acquisition of the stock, the Government continues, enabled Columbia Gas and Columbia Oil to dominate the policies of Panhandle.

On the same date, the bill continues, the Missouri-Kansas Pipe Line Co. contracted to buy from Panhandle a quantity of natural gas to be sold at Indianapolis. The defendant companies, the Government charges, prevented Panhandle from delivering gas to Missouri except on condition that Missouri-Kansas would agree to make, sell and deliver gas at certain points. Missouri-Kansas refused to make this agreement, the Government points out.

ROYALITE GAS SALES

CALGARY, Alberta, Mar. 9.—Sales of natural gas during the past six years, chiefly to the Canadian Western Natural Gas, Light, Heat & Power Co., have yielded the Royalite Oil Co. an annual revenue in excess of $500,000 a year. In 1933 the company's sales of gasoline and naphtha increased to $792,253, compared with $271,896 the previous year; and the erection of a second gasoline absorption plant in the Turner Valley Field is expected to further increase this revenue.

East Ohio Gas Co. Lays Natural Gas Pipe Line Over Bridge in Cleveland

A new gas pipe line, over 3,000 feet in length and built of 20-inch pipe with all field joints arc welded was recently completed over one of Cleveland's longest bridges. The East Ohio Gas Co., for which the line was constructed, specified welding as a safety factor. The new line hooks into existing services at either end of the bridge.

This line is constructed of 40-foot pipe, factory welded from 20-foot lengths. The pipe has three-eighths inch wall thickness, 20 inches in diameter with ends beveled to 45 degrees. Total weight of pipe used over the bridge was 126 tons. The total length of the line from one end of the bridge to the other is 3,017 feet.

The line was strung on the paved roadway of the third level of the bridge. In order to get the pipe up on this level it was necessary to hoist it with chain falls onto a small truck, which hauled it to position. The truck was fitted with a dolly which facilitated the placing of the pipe.

The pipe was mounted on roll and saddle mountings, permanently bolted to the beams of the bridge. The pipe was lined up, with a space of one-eighth inch between joints. After the pipe was in proper position and blocked up, five tack welds were made on the joint to hold it in place for starting to weld. Plain butt joints without backing up rings were used. Two beads were run per joint, except where the opening between the pipe ends exceeded one-eighth inch, in which case a sealing bead was used. One bead was laid clear around the joint and nearly flush with the pipe. The second bead was laid to make a flush weld. In making the first few welds, it was possible to roll the pipe, but after four lengths of pipe had been welded, the remaining joints had to be welded without turning the pipe. A total of 89 joints were welded. Each joint required approximately 4 pounds of three-sixteenths inch electrode manufactured by the Lincoln Electric Co., Cleveland, Ohio.

A total of eight expansion joints of the slip type was used on the line. The slip of these expansions were made of stainless steel to prevent corrosion. Each slip can move a maximum of 8 inches. Six of these were in single and two double, the latter placed at the apex of the bridge. The pipe was welded to the nipples of the expansion joints. After welding in, all joints were annealed. Approximately 30 days were required for laying and welding the pipe. The welding current was supplied by one of the new 300 ampere gasoline driven Shield arc welders manufactured by the Lincoln Electric Co.

When completed, the line was tested with 85 pounds pressure. In operation the line will carry a pressure of approximately 40 pounds. Regarding the effects of temperature variations it was found that the line expands or contracts at the rate of .2 inch per degree change in temperature.

Welding natural gas pipe line on bridge at Cleveland, Ohio

Wichita Falls Involved in Two Gas Hearings

WICHITA FALLS, Tex., Mar. 11.—The city of Wichita Falls will be represented at two gas utility court hearings this week. W. E. George, city attorney, and B. D. Sartin, special city attorney on utility questions, will go to Austin March 14, when arguments are to be heard before the Court of Civil Appeals on the gate rate decision handed down by the Railroad Commission last summer reducing the Lone Star Gas Co.'s gate rate from 40 to 32 cents per 1,000 feet.

The company appealed to the Travis County District Court and a jury found that the 32-cent rate was confiscatory. The attorney general is carrying the question to the Appellate Court and the hearing is set for March 14.

Mr. Sartin has been instructed to be in Fort Worth on the following day, March 15, to represent Wichita Falls at a hearing before the Court of Civil Appeals on the appeal of the Municipal Gas Co. from the ruling of Judge P. A. Martin that the utility had no franchise at the present time and therefore could not ask for an injunction to prevent the city from collecting a 5 per cent gross receipts tax for street and alley rental.

Ratable Taking Bill in Texas Legislature

AUSTIN, Tex., Mar. 11.—Ratable taking was recommended by a subgroup of the house committee on oil, gas and mining as a curb on the waste of gas in the Panhandle and other fields. The group also suggested heavy penalties be levied against any producer blowing gas into the air, except where incidental to oil production.

Representative Sidney Latham of Longview, chairman, indicated every effort would be made to obtain speedy passage of the bill.

Other recommendations:

Restriction of the use of sweet gas to light and fuel purposes.

Authorization of working agreements between producers for co-operative development of tracts.

Ratable withdrawals between sour and sweet gas areas to prevent sweet gas being sucked into sour gas strata.

Placement of limited power in the State Railroad Commission to fix a reasonable price for gas in case of controversy.

Casinghead gasoline could be stripped from both sweet and sour gas. If from sweet gas, the residue must be used for light or fuel purposes. If from sour gas, it must be used for carbon black manufacture, some other useful purpose or repressured. Production would be prorated on a potential basis.

Two years ago independents obtained passage of a law permitting them to use sweet gas in carbon black and casinghead gasoline plants after major pipe lines succeeded in having the ratable taking law declared unconstitutional and refused to purchase equitably. Residue from casinghead gasoline plants was blown into the air, causing grave apprehensions by major pipe line officials that the reserve would be depleted speedily.

Under the subcommittee bill, the entire law would fall if the ratable taking provision was held to be unconstitutional.

ILLINOIS TAX BILL

SPRINGFIELD, Ill., Mar. 11.—A bill, which would impose a tax upon all pipe line companies transporting natural gas into Illinois at the rate of 10 cents per 1,000 feet of gas sold in the state, introduced in the legislature by Senator Charles W. Baker, of Monroe Center, provides that the tax would become effective after July 1, 1935. Effective August 15, 1935, every pipe line company engaged in the business during the previous month would be required to make a return to the State Department of Finance stating the name of the company, its address, the number of feet of natural gas sold in the state during the previous month and pay the tax provided for. The bill also would require companies to pay their taxes before the fifteenth of each following month.

The bill was referred to the committee on public utilities, where it has remained. Members of both bodies of the legislature express doubt the bill will get out of the committee.

LONE STAR GAS CORP.

PITTSBURGH, Pa., Mar. 11.—Lone Star Gas Corp. in preliminary statement estimates surplus for year ended December 31, 1934, subject to final audit, of $3,161,948 after taxes, interest, depreciation, dividends on preferred stock and subsidiary preferred dividends, available for common stock, equal to 59 cents a share on 5,380,723 shares of common stock. This compares with $2,837,818, or 53 cents a common share in the preceding year.

DRESSER

BUILDS A LEAK-PROOF PRODUCT FOR EVERY PIPE LINE PROBLEM

COUPLINGS AND LONG SLEEVES FOR ALL KINDS AND SIZES OF PLAIN END PIPE JOINTS
CLAMPS FOR VARIOUS TYPES OF DEFECTIVE JOINTS ON EXISTING LINES
SPLIT SLEEVES FOR COMPLETELY ENCLOSING AND REPAIRING DEFECTIVE PIPE AND JOINTS ON EXISTING LINES
STYLE 38, 36"
STYLE 38, 12" I.D.
STYLE 53, 12" C.I.P.
STYLE 40, 6" I.D.
STYLE 38, 1¼" I.D. SERVICE COUPLING
STYLE 65, 1" I.D.
STYLE 60
STYLE 73, 12" I.D.
STYLE 52-A, 12" I.D.
STYLE 41
STYLE 26, 12" C.I.P.
STYLE 55
STYLE 57, 12" C.I.P.
STYLE 57, 12" C.I.P. MULTIPLE INSTALLATION
STYLE 54-A, 16" O.D.

COUPLINGS AND LONG SLEEVES

STYLE 38 Steel Couplings make PERMANENTLY TIGHT, flexible connections between plain-end pipe sections, are quickly and easily installed by unskilled labor, are rubber gasketed, and absorb all normal pipe movements. Sizes: 3/16" I.D. to largest pipe diameter for all kinds of pipe.

STYLE 40 Long Sleeves serve the same purpose as Style 38's, but are installed on widely separated pipe ends. Sizes: ½" I.D. to 24" O.D. inclusive.

STYLE 53 Cast Couplings are like Style 38, except cast. Sizes: 4" to 30" inclusive.

STYLE 65 Compression Couplings have screw followers instead of bolts to compress the gaskets. Sizes: 3/16" I.D. to 2" I.D. incl.

CLAMPS

Dresser Clamps repair leaks in various types of pipe joints. They can be applied by unskilled labor without interruption of the service, give a permanently tight repair and are made by the world's largest and oldest builder of clamps.

STYLE 60 Ball Joint Clamps are adjustable, have a continuous gasket recess, and a sealing "pack" scientifically designed and PROVED. Sizes: 3" to 60" inclusive.

STYLE 41 (and 4) Collar Clamps prevent and repair leaks in screw collars (screw couplings). Sizes: ¾" I.D. to 12" I.D. inclusive.

STYLE 55 Porous Weld Clamps permanently repair porous but not broken welds. Sizes: 2" O.D. to 26" O.D. inclusive.

SPLIT REPAIR SLEEVES

Dresser Split Sleeves completely enclose and permanently repair breaks, splits, holes and defective joints of all types. They can be applied quickly, by unskilled labor, in any weather, under water, etc. All are rubber packed. Special styles of welded steel sleeves are built for unusual conditions or odd sizes.

STYLE 52-A Sleeves repair welds, screw collars, splits, holes, etc. Inside length: 8". Maximum working pressure: 500 lbs. per sq. in. Sizes: 4" I.D. to 26" O.D. inclusive.

Style 73 Sleeves are used for the same purpose as Style 52-A, except maximum working pressure is 250 lbs. per sq. in. Inside length: 8". Sizes: 2" I.D. to 12" I.D. inclusive.

STYLE 26 Sleeves repair broken bells on cast iron pipe. Maximum working pressure: 150 lbs. per sq. in. Sizes: 3" to 24" inclusive.

Style 57 Sleeves are identical with Style 73, except made for cast iron pipe sizes. Maximum working pressure: 250 lbs. per sq. in. Sizes: 3" to 12" inclusive.

Multiple Installations of two or more Style 57 or 73 Split Sleeves, for repairs longer than 8", can be made with simple joiner parts.

Style 54-A Sleeves repair leaking joints of the bolted coupling type on steel pipe. Maximum working pressure: 500 lbs. per sq. in. Sizes: 2" I.D. to 26" O.D. inclusive.

WRITE FOR FURTHER INFORMATION!

S. R. DRESSER MANUFACTURING COMPANY

BRADFORD, PA. (In C[illegible] DRESSER MFG. COMPANY, LTD., 32 Fr[illegible] St., W.T[illegible] Ont.)

MARKET RECORD OF OIL SECURITIES

Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended March 9 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1934	1934 High	1934 Low	1933 High	1933 Low
57	48½	2,400	56¼	54¾	55½	Amerada Corp.	774,875	N.P.	50cQ	1-31-35	$2.00	55⅝	39	47⅝	18½
25⅜	22¼	8,000	23¼	22⅛	22¼	Atlantic Refining	2,673,834	$25	25cQ	3-15-35	1.00	35¼	21½	32½	12⅜
7	5⅞	7,200	6¼	5⅞	6	Barnsdall Corp. A	2,248,795	$5	....	5-11-31	....	10	5⅞	11	3
7¾	4¼	24,700	5	4¼	4¼	Columbia Gas & Elec.	11,610,036	N.P.	....	5-15-34	‡ .25	19¼	6⅝	28⅛	9
8¾	7	23,000	7⅝	7	7	Consolidated Oil Corp.	14,218,835	N.P.	14c	10-31-34	.42	14¼	7¼	15¾	5
19⅛	16⅝	10,300	17½	16⅝	16¾	Continental Oil of Delaware	4,738,593	$5	25c	10-31-34	.50	22¾	15¾	19⅝	4⅞
18⅞	13½	3,600	14½	13½	13⅝	General Asphalt	387,149	$10	....	6-15-32	....	23½	12	27	4⅝
3⅜	2½	1,400	2¾	2½	2½	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	5⅝	2½	7⅜	1⅞
1⅞	1	900	1⅛	1	1⅛	Louisiana Oil Refining	1,302,158	N.P.	....	.....	....	3⅜	¾	4	⅝
12⅞	10½	2,300	11	10⅝	10⅝	Mid-Continent Petroleum	1,857,912	$10	25c	11-15-34	.50	14⅜	9⅛	16	3¾
14⅝	10⅛	100	10⅛	10⅛	10⅛	National Supply of Delaware	382,591	$25	....	5-15-31	....	21⅛	10	28⅝	4
10⅞	9½	5,000	10	9⅝	9¾	Ohio Oil Co.	6,563,107	N.P.	15c	12-15-34	.45	15⅞	8½	17⅝	4¾
8¾	7	2,000	8⅝	8	8⅛	Pacific Western Oil	1,000,000	N.P.	40c	11-30-34	.40	9⅜	5½	9½	3
1⅜	⅝	100	⅝	⅝	⅝	Panhandle P. & R.	198,770	N.P.	....	.....	....	2½	⅝	4¼	⅜
16	14⅛	8,000	15	14⅜	14⅜	Phillips Petroleum	4,154,687	N.P.	25c	3-1-35	1.00	20¾	13⅜	18¾	4¾
8¾	7	3,800	8	7½	7⅞	Plymouth Oil Co.	1,014,082	$5	4% Stk.	12-22-34	75c & 4% Stk.	16¾	7¼	17⅝	6¾
7¾	6⅝	8,400	6⅞	6⅝	6⅝	Pure Oil	3,038,370	N.P.	....	9-1-30	....	14⅞	6⅛	15⅜	2½
32⅜	29¼	300	30¼	30	30	Royal Dutch N. Y. shares	432,224	$14	$1.35	7-31-34	1.35	39⅛	28⅝	39¾	17⅝
26⅞	21	3,000	23⅜	21½	21½	Seaboard Oil of Delaware	1,204,460	N.P.	15cQ†	3-15-35	1.00	38⅜	20¾	43⅜	15
7⅞	6⅛	7,400	6⅝	6⅛	6¼	Shell Union Oil	13,070,625	N.P.	....	6-30-30	....	11½	6	11⅝	4
78¾	68¾	400	70	69	69	Shell Union Oil pfd.	400,000	$100	....	7-1-31	....	89	57	61	28½
18¾	15	10,700	17⅛	15⅞	16	Simms Petroleum	461,698	$10	50c	2-1-35	.55	17⅛	7¼	12⅜	4⅞
8	6½	2,500	7¾	7⅜	7½	Skelly Oil	1,008,514	$25	....	12-15-30	....	11½	6	9⅞	3
14⅞	11⅜	47,700	13	11⅜	11⅝	Socony-Vacuum	31,019,694	$25	15cQ	3-15-35	.60	19⅞	12½	17	6
32⅜	28⅜	13,200	29¾	28⅜	28½	Standard Oil of California	13,102,900	N.P.	25c	3-15-35	1.00	42⅞	26½	45	19½
25¼	23¾	10,900	24¾	23¾	23¾	Standard Oil (Indiana)	15,941,894	$25	25cQ	3-15-35	1.00	32¾	23¼	34	17
32	29⅞	200	31	31	31	Standard Oil of Kansas	200,000	$10	50cQ	10-31-34	2.00	41	26	39⅞	12¾
43½	37	13,200	39	37	37	Standard Oil of New Jersey	25,740,065	$25	50cSA†	‖3-15-35	1.25	50⅛	39¼	47½	22¾
68½	63	700	66	63	63	Sun Oil	1,733,013	N.P.	25cQ	3-15-35	$1 & 9% Stk.	74¼	51½	59	35
21⅝	18½	14,700	19⅞	18½	18½	Texas Corp.	9,486,417	$25	25cQ	4-1-35	1.00	29⅜	19⅝	30⅛	10⅜
4¼	3¼	2,500	3¾	3⅝	3⅝	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	....	6½	2½	6½	1⅜
10	8¼	10,600	8⅝	8¼	8¼	Tide Water Associated	5,618,672	N.P.	....	2-16-31	....	14⅜	8	11¾	3⅛
88½	84	1,200	88½	87	87⅞	Tide Water Associated pfd.	666,524	$100	$2§	4-1-35	§8.50	87	64½	65¼	23½
16⅝	14¾	3,900	16⅜	16	16	Union Oil of California	4,386,070	$25	25cQ	2-9-35	1.00	20½	11½	23⅜	8½
26⅛	23⅞	900	24¾	23⅞	23⅞	Union Tank Car Co.	1,200,000	N.P.	30cQ	3-1-35	1.20	25¾	15⅝	22¾	10½
2⅝	2	300	2	2	2	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	5¾	2	5½	2

*Ex-dividend. †Plus extras. ‡Payable in preferred stock. §On account of accumulated and current dividends. ‖Distribution 4/75 Mission Corp.

Active Oil Stocks Listed on New York Curb

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended March 9 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1934	1934 High	1934 Low	1933 High	1933 Low
33	30½	50	33	33	33	Buckeye Pipe Line Co.	200,000	$50	75cQ	3-15-35	$3.00	38	26	39¾	25
2⅜	1⅝	7,000	2¼	1⅝	2⅛	Carib Syndicate	799,020	25c	....	.....	....	5½	1½	7¾	⅛
157	140	No sales ..	..	..	..	Chesebrough Mfg. Co.	120,000	$25	$1Q†	3-29-35	11.50	150	116	129	71
1½	1	34,400	1⅛	1	1	Cities Service	37,804,394	N.P.	....	6-1-32	....	4¼	1¼	6¼	1½
1/16	⅛	200	⅛	⅛	⅛	Colon Oil	2,200,000	N.P.	....	.....	....	3¼	½	4	¼
⅞	7/16	3,100	⅝	7/16	½	Cosden Oil	399,687	$1	....	.....	....	3⅞	½	3⅞	1⅜
13⅜	10⅞	3,300	11¼	10⅞	11	Creole Petroleum	6,974,356	$5	....	.....	....	14⅜	9⅝	12	4¾
4⅞	4½	200	4⅝	4½	4½	Darby Petroleum	509,696	$5	25c	1-25-35	.50	7½	4⅛	8	2⅛
1⅛	1/16	No sales ..	..	..	..	Derby Oil & Refining	263,162	N.P.	....	.....	....	2¼	1	2¾	⅞
38	34	50	37	37	37	Eureka Pipe Line	50,000	$50	$1Q	2-1-35	4.00	37	30	41¾	20
60⅞	52¾	4,600	56⅛	52¾	53	Gulf Oil Corp.	4,538,101	$25	....	10-1-31	....	76¾	49¾	62	24
50¾	44	6,400	48¼	46¼	46¼	Humble Oil & Refining (new)	8,923,935	N.P.	25cQ	4-1-35	§1.25	496	33¼	105½	40
17⅛	16⅛	3,400	16¾	16¼	16⅜	Imperial Oil of Canada	26,857,152	N.P.	25cSA†‡	12-1-34	.92½	17⅞	12⅝	15⅞	6½
4½	3¾	No sales ..	..	..	..	Indiana Pipe Line	300,000	$10	15cSA†	11-15-34	.35	6⅞	3⅝	8	3⅛
31⅜	28⅞	5,400	30⅜	29	29½	International Petroleum	14,247,088	N.P.	56cSA†‡	12-1-34	2.28	33⅜	19⅜	23½	8⅞
6	4⅜	4,100	5⅞	5¼	5⅞	Louisiana Land & Exp.	3,000,000	N.P.	....	.....	....	5	2⅛	2¼	3/16
4⅜	3⅝	No sales ..	..	..	..	Lion Oil Refining	270,000	N.P.	....	10-27-30	....	6	3⅜	9½	1¼
6¼	4¾	500	4⅞	4¾	4¾	Lone Star Gas	5,382,723	N.P.	15c	2-15-35	‖ .16	8⅜	4¼	11⅞	4¾
4⅝	4¼	1,100	4½	4¼	4⅜	Mountain Producers	1,682,182	$10	15cQ	4-1-35	.60	5½	4	6½	2½
14	12¾	1,600	13¼	12¾	12¾	National Fuel Gas	3,810,183	N.P.	25cQ	10-15-34	1.00	18⅛	13⅛	20	10
8	6⅝	400	7⅞	7	7	National Transit	509,000	$12.50	35cSA	12-15-34	.75	9½	7	10	5½
2⅝	2	1,100	2	2	2	New Bradford Oil	1,445,202	$5	10cSA	3-15-35	.20	2½	1¾	2⅛	½
2⅛	1⅜	500	1½	1½	1½	New Mexico and Arizona	1,000,000	$1	....	.....	....	2¾	1	1⅞	½
3⅜	3¼	No sales ..	..	..	..	New York Transit	100,000	$5	15cSO	10-15-34	.30	4¾	3	4⅞	3
5⅝	5¼	300	5⅝	5½	5½	Northern Pipe Line	120,000	$10	25cSA	1-2-35	.50	7	4⅝	6¼	4¼
2⅛	1½	7,200	1⅝	1½	1⅝	Pantepec Oil	1,608,700	N.P.	....	.....	....	2⅝	⅞	3¾	⅛
1¼	1⅛	1,000	1⅛	⅝	1	Ryan Consolidated	296,931	N.P.	....	.....	....	3⅜	⅞	4¼	⅝
6¼	5¾	1,100	6	5¾	5⅞	Salt Creek Producers	1,496,859	$10	20cQ	2-1-35	.80	7⅞	5½	9¼	3½
23¾	22¼	700	23	22½	23	South Penn Oil	1,200,000	$25	30cQ	3-30-35	1.20	26½	17½	22⅛	11
4	3⅞	100	4	4	4	Southern Pipe Line	100,000	$10	15cSA	3-1-35	.25	5½	3½	6	2⅛
52½	45¼	No sales ..	..	..	..	Southwest Penna. Pipe Lines	35,000	$50	$1Q	4-1-35	5.00	47	41	43	24½
21⅝	18	1,500	20⅜	19⅝	19⅝	Standard Oil of Kentucky	2,606,983	$10	25cQ†	3-15-35	1.50	18⅜	14⅝	19¼	8⅜
9	8¼	300	8¼	8	8	Standard Oil of Nebraska	190,822	$25	....	6-20-34	.50	16⅞	8¼	20½	11
16¼	12¾	500	14	12¾	12¾	Standard Oil of Ohio	753,740	$25	....	1-3-33	....	28½	12¼	41	15½
1¼	1	400	1⅛	1⅛	1⅛	Sunray Oil	1,610,810	$1	....	4-15-31	....	2	1/16	1½	¼
6⅞	5⅝	500	5⅞	5⅝	5⅝	Texon Oil & Land	936,028	N.P.	15cQ†	12-29-34	.90	11	4⅜	13¾	6¼

*Ex-dividend. †Plus extras. ‡Payable in Canadian funds. §Includes 50 cents on old $25 par value stock. ‖Payable in preferred stock.

Note—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing and transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depths of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannnot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

More Core Drilling by Operators of Small Wells Recommended

When well cores are taken can these cores be examined satisfactorily right in the field or is it necessary to have a laboratory? What is the principal information of practical value obtainable from core examinations? Can cores be obtained in cable-tool jobs as well as rotary? Is it worth while for an owner of small wells who is considering reconditioning them to go to the expense of core drilling?—N. N. E.

There is no good reason why owners of small wells should not avail themselves of the improved methods of determining bottom-hole conditions and thus being able to lay out a definite and intelligent program before starting to recondition their properties.

There are first-class commercial chemical laboratories catering to the owners of wells that are equipped to make complete reports upon all phases of sand conditions and advise the well owners the probabilities of economical success by the application of treatment to his wells. It is necessary to pay the owners of these laboratories a fee for their work and advice of course, and some well owners seem to think this folly because they can try out some experiment suggested by an acquaintance for a relatively small sum of money.

Casual field examinations of cores have led to erroneous classification of the samples. Some pieces saved as apparently "saturated" have turned out to be poorly saturated when examined in the laboratory and other portions of the core not so designated were actually well saturated with oil and gas. Outward appearance of the samples is misleading sometimes and it is much better to submit all the core recovered to the laboratory and take precautions to see that it reaches there in good shape rather than attempt selection in the field.

Among the most important things to be determined in a laboratory test are the permeability and porosity of the sample submitted. These two qualities of sandstones tell much of their probable reactions to various treatments that may be applied to increase the recovery of oil or gas. Permeability is the capacity of the rock to conduct liquids or gas under pressures. Porosity is the relative poor space in the sample and is expressed in percentage of total volume of the sample.

It is possible for operators to get good cores from either cable-tool or rotary-drilled holes. In many instances decision has been made to proceed with a program of repressuring that requires the drilling of additional wells on the lease. In such instances it is possible to get complete and reliable cores from such portions of the hole as have a bearing upon the future problems in reconditioning.

It must be borne in mind at all times that the technician in the laboratory can never get good results from poorly selected cores. Coring is not expensive and in many instances it has been found that by the use of good core-barrels the hole can actually be drilled for less than it would have cost had ordinary drilling methods been followed. As a general rule, however, coring does cost slightly more than straight cable-tool or rotary drilling.

If money is to be spent for coring—and coring is one of the first essentials in acquiring reliable data upon which to base future operations—care should be taken in drilling the section from which samples are desired and the instructions provided by the manufacturer of the core-barrel should be carefully followed. It must be remembered that these manufacturers have succeeded in surviving keen competition. They have gained much valuable knowledge of their business and this experience is available to those who desire to use their equipment.

Wants Way of Finding Flaws in Coatings of Pipe Lines

When covering a pipe line with a protective coating in the field it is an easy thing we have found to leave little spots uncovered. These spots start trouble later, for in some of the soil that we go through it takes only a little while for severe damage to be inflicted if corrosion gets even the smallest chance to start. Do you know of any method or any appliance that may be used to help in catching these minute points of trouble?—H. E. E.

An electric contrivance improvised by the Humble Pipe Line has been used by that company with success in detecting these "holidays," as pipe line men term spots on pipe lines not adequately covered by the application of protective coating. In the use of this detector a high-tension charge is directed to a set of hair wire brushes covering the circumference of the pipe. As they are moved along the pipe the brushes emit a spark whenever they come in contact with a spot which has not been covered by the coating.

The electric current is provided by a small storage battery connected with a high-tension coil, which in turn charges the brushes. The coil is grounded, and as the pipe of course is grounded a short circuit is produced whenever the brushes touch the metal of the pipe. The coating placed on the pipe serves as an insulator and if the pipe is thoroughly covered with this insulation there can be no short circuit.

The battery and coil are carried in a small wooden box, mounted on four wooden wheels riding the top of the pipe. The brushes, consisting of two overlapping, half circle sections of hair wire feelers, which fit around the pipe, are on an axle protruding from the rear and are dragged along the pipe. The brush holders can be raised or lowered around the pipe at will. The length of the spark is such that the feelers do not have to come into actual contact with the metal of the pipe to create the spark. The ground for the coil is provided through a long cable, the end of which sticks in the ground.

The device can be rolled along the pipe and operated by one man although it is more easily handled by two men, one on each side to watch for the "holidays." The machine has been only roughly constructed but has proved effective in locating defective places, which are marked with chalk as the men push the machine and then are recoated by the follow-up crew.

Why Was It Called That?

PECOS

The land "west of the Pecos," where important oil history has been written in the last decade and once the scene of border lawlessness, is still the only real frontier of Texas. Pecos is a corruption of Pauquiu, the name of an aboriginal Indian tribe in New Mexico and of a now ruined village 25 miles southeast of Santa Fe, N. Mex. From these was taken the name of the river, whose headwaters are near the old ruins. Seventy years ago border justice was administered west of the Pecos by Judge Roy Bean in a two-room building still standing at Langtry. One room was a courtroom and the other a saloon. One of many stories is that a traveling man entered the saloon and rapped on the bar. Judge Bean, holding court in the adjoining room, responded, served a 25-cent drink of whisky, and found himself unable to change the $20 bill given in payment. So he arrested his customer for disturbing the court, fined him $19.75 and kept the bill.

Concerning Stage Lift and Liners in the Oklahoma City Field

I would appreciate some information concerning the use of a stage-lift device which I believe has been tried out by one or more companies operating in the Oklahoma City Field. What is the principle of this device, please? Are liners employed in that field? If they are, of what type are they? Do the operators have much trouble as a result of the liners sanding up? Are any of the older producers being put on the beam? What size tubing and type of working barrel are used?—G. N. E.

A special stage-lift device is being used with satisfactory results in some Oklahoma City wells of the Indian Territory Illuminating Oil Co. and as this system is developed more of these units are expected to be employed. The general idea back of the device is so to arrange a bottom hole flow piece that for part of the time low pressure injected gas will lift the oil from the bottom of the hole and deliver it into the annular space outside of the tubing and above the packers and later eject this fluid by a flow of high pressure gas escaping from ports located near the bottom of the hole and opening into the annular space filled with fluid. The device recently was reported to be delivering about 300 bbls. of oil daily on one well and about 45 bbls. daily on another.

While many methods of recovering oil have been tried in this field it appears that ultimately the lease production will be obtained from the fewest possible number of wells and these wells provided with beam pumping units. What form these units may take will depend upon local conditions and engineers' choice. The pneumatic cylinder is classified as a means of pumping with rods the same as with beams or other apparatus.

The wells are tubed with 2½ or 3-inch tubing and long-stroke working barrels attached to the lower end of the string. The bore of these working barrels is from 1¼ to 1¾ inches in diameter and the stroke of the pump from 5 to 10 feet, with the rate of stroke varying from 10 to 25 reversals per minute. For example with 64-inch stroke the rate is from 18 to 22 s.p.m. with a maximum of 26 s.p.m.

The upper string of rods, approximately 2,700 feet long, usually is seven-eighths of an inch in diameter with the rest of the string three-quarter inch. The working barrel is placed as close to the bottom of the well as possible.

Liners have been coming into common use in the Oklahoma City wells. They are installed with adapters or packers as soon as the hole is cleaned out and made ready for putting on mechanical production. Many of the liners have been made in company machine shops using portable electric driven milling cutters that cut slots one-eighth inch wide by about 2½ inches long. These slots average about 10 to each foot of pipe when all four rows of slots are counted.

After the liners are set sand enters the inside of the pipe for a time but gradually the larger cavings effectively close the outside slots to the entrance of fine sand and have the same effect as a gravel pack placed outside of the liner. The liners have not sanded up seriously according to reports and they reduce pulling time owing to sand packing on top of standing valves.

Kansas Wildcats

(Continued from Page 78)

Gypsy Oil Co.'s No. 1 Koessling, NW NW SW Sec. 10-30-9w.
Coring 3,231 ft.
Langston et al's No. 1 Markle, NE NE SW Sec. 1-20-9w.
Set 6-in. csg. 3,040 ft.; T.D. 3,083 ft.
Marathon Oil Co.'s No. 1 Grove, SE NE NW Sec. 29-19-9w.
Location.
Vickers Pet. Co. et al's No. 1 Gouldner, SE NE NW Sec. 16-18-9w.
Drlg. 135 ft.

ROOKS COUNTY

Carman & Hershey's No. 1 Nelson, NW NW NE Sec. 27-10-16w.
Rig.
Carman & Hershey's No. 1 Nelson, NW NW NE Sec. 27-10-16w.
Rig.
Stearns & Streeter's No. 1 Hoskins, SE SW SE Sec. 34-9-16w.
Acidized; pumped 120 bbls. oil from Oswald lime 3,084-3,106 ft.
Trees Oil Co. and Findeiss' No. 1 Johnson, SW SW SE Sec. 26-10-19w.
Moving in material.

RUSH COUNTY

Lario O. & G. Co. and Phillips Pet. Co.'s No. 1 Benbow, NW NE NE Sec. 13-17-19w.
T.D. 3,397 ft.; running 6-in. csg.
Morgan & Flynn's No. 1 Schlegel, SE SE NW Sec. 26-17-16w.
Rig.

RUSSELL COUNTY

J. Brouk and R. D. Bailey's No. 1 Kluesner, NW SE Sec. 34-15-12w.
Rigged up.
Eldorado Ref. Co.'s No. 1 Walz, SE NE NW Sec. 29-13-11w.
H.F.W. 3,439-41 ft.; abd.
Hartman & Blair's No. 1 Furthemyer, NE cor. Sec. 1-14-14w.
8-in. csg. 2,410 ft.; drlg. 2,720 ft.
Hartman & Blair's No. 1 Garrett, SW SW NW Sec. 24-13-13w.
Moving in material.
Hartman & Blair's No. 1 Krause, NE NW NW Sec. 5-15-15w.
Drlg. 3,010 ft.
Hartman & Blair's No. 1 Hildebrandt, NW NE SW Sec. 12-14-14w.
Building rig.
Lario O. & G. Co. et al's No. 1 Nuss, NW SW SW Sec. 11-16-14w.
Moving in material.
Murphin et al's No. 1 Funk, SW cor. Sec. 19-12-13w.
Spudded and S.D.
Vernon & Murphin's No. 1 Becker, NE cor. Sec. 32-15-13w.
Moving in material.
Wolf Creek Oil Co.'s No. 1 Kraft, SW cor. Sec. 26-16-11w.
Set 15-in. pipe 480 ft.
Wolf Creek Oil Co. et al's No. 1 Penn Mutual, SW cor. Sec. 22-15-15w.
Moving in material.

SALINE COUNTY

Dieter et al's No. 1 Herrington, NE NW SE Sec. 3-13-1w.
Drlg. 2,630 ft.

SCOTT COUNTY

Atlantic Oil Prod. Co.'s No. 1 Vaniman, C SE NE Sec. 15-20-33w.
6-in. liner 4,680 ft.; pay 4,670-86 ft.; acidized and pump 572 bbls. in 24 hrs.; T.D. 4,701 ft.; completed.

SEDGWICK COUNTY

Aladdin Pet. Co. et al's No. 1 D. Lauck, SE NE NW Sec. 21-28-2.
Siliceous lime 3,255-70 ft.; dry and abd.
Allison & Fitzwilliams et al's No. 1 Struthers, NE SW Sec. 34-25-2w.
H.F.W. 3,176-87 ft.; T.D. 3,295 ft.; fishing.
Cameron, Derby Oil Co. and Trees' No. 1 Brainard, SW SE NW Sec. 19-24-2.
Spudded and S.D.
Magnolia Pet. Co.'s No. 1 Bartholomew, SE SE SW Sec. 30-27-4w.
Chat 3,682 ft.; 9-in. 3,692 ft.; standardizing.
Syndicate O. & G. Co. et al's No. 1 Ratzlaff, NE NW NW Sec. 30-26-2.
Dry and abd.; T.D. 3,530 ft.

SHAWNEE COUNTY

Jim Edwards' No. 1 Detrick, C NW NE Sec. 31-14-15.
Top sand 590 ft., T.D.

STAFFORD COUNTY

Atlantic Oil Prod. Co.'s No. 1 Hohner, NW SE SE NE Sec. 21-23-14w.
Siliceous lime 4,075-85 ft.; 1,500 ft. of wtr. in hole; will core.
Atlantic Oil Prod. Co. and Phillips Pet. Co.'s No. 1 Guthrie, C NW NW Sec. 16-25-11w.
8-in. 3,073 ft.; drlg. 3,185 ft.
Lario O. & G. Co.'s No. 1 Tudormorgan, SE SE NW Sec. 28-24-13w.
15-in. pipe 230 ft.; drlg. 564 ft.

SUMNER COUNTY

T. Palmer's No. 1 Wentworth, NW NW NE Sec. 9-35-2.
Drlg. 3,950 ft.
Shell Pet. Corp.'s No. 1 Green, SE SW NW Sec. 3-33-2.
Spudded.
Wakefield Pet. Co. et al's No. 1 Newton, SE Sec. 31-30-2.
Rig.
D. J. Wilson et al's No. 1 Clark, 1,320 ft. from W and 35 ft. from S line of NW Sec. 15-35-1w.
Building rig.

TREGO COUNTY

Central Commercial's No. 1 Wagg, NW NW SE Sec. 17-13-21w.
T.D. 1,600 ft.; fishing.
Hansa & Lauck's No. 1 Lang, SE SE NW Sec. 1-14-21w.
Cellar.
Jenmar Oil Co.'s No. 1 Jones, SE cor. Sec. 26-12-23w.
Drlg. 2,895 ft.

Gulf Coast Wildcats

(Continued from Page 67)

Texas Co.'s No. 1 C. P. Dawson, 2,475 ft. S. 441.9 ft. W of NE cor. of Lot 59, H.T.&B. Sur. No. 32.
T.D. 5,645 ft.; 7-in. csg. 5,627 ft.
Texas Co.'s No. 3 A.R.G.G.H. Co., in C of Lot 37, H.&T.C. Sur. No. 23.
Drlg. shale and lime 5,564 ft.
Texas Co.'s No. 10-A Belcher, N 42 deg. E 330 ft. and N 48 deg. W 330 ft. from S cor. of Belcher "A" lease, H. N. Little Sur.
Abd. 6,216 ft.
Texas Co.'s No. 17 Houston Oil Fields Assn., 244 ft. S. 244 ft. W. from NE cor. of Lot 1, A.C.H.&B. Sur. No. 91.
Location.
Texas Co.'s No. 16 Houston Oil Fields Assn., 247 ft. S. 440 ft. E from NW cor. of Lot 19, A.C.H.&B. Sur., No. 91.
Location.
Texas Co.'s No. 1 J. L. Lemmer, 330 ft. S 48 deg. E and 330 ft. N, 42 deg. E of W cor. of lease, Thomas Sproggins Sur., Abst. A-366.
T.D. 6,017 ft.; P.B. to 3,750 ft.
Texas Co.'s No. 2 Dawson, 247 ft. S. 241 ft. W of NE cor. of Lot 58, H.T.&B. Sur. No. 23.
Location.
Texas Co.'s No. 1 L. C. Dawson, 247 ft. S. 441 ft. W of NE cor. of Lot 49, H.T.&B. Sur. No. 23.
Location.
Texas Co.'s No. 2 Dawson, 247 ft. S. 441 ft. W of NE cor. Lot 48, H.T.&B. Sur. No. 23.
Location.
Trumba Oil Co.'s (J. M. Campbell) No. 1 H. McCauley, 150 ft. each way out of NE cor. of W 5 acres of Lot No. 2, A.C. H.&B. Sur. No. 91.
Location.
Windsor Oil Co.'s No. 3 Colby, 660 ft. SW of No. 1, center of tract N and S Tract 20, T. Spraggins Sur.
Drlg. 1,200 ft.

STRATTON RIDGE—BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 1 Seider & State, 225 ft. due N of No. 3.
Drlg. wtr. sand 4,580 ft.

WEST COLUMBIA—BRAZORIA COUNTY

Sterling O. & R. Co.'s No. 4 Hogg, 200 ft. S of No. 1, 50 ft. from W line of lease, Martin Verner Sur.
T.D. 5,295 ft.; cmt. back to 4,850 ft.; drilled out cmt. to 5,190 ft.; S.D.
Texas Co.'s No. 84 Hogg, 2,483 ft. N, 50 ft. W from SE cor. of lease, M. Varner Sur. Temporarily S.D. 5,242 ft.

BARBERS HILL—CHAMBERS COUNTY

Moody Corp.'s No. 1-C E. W. Barber, 302 ft. from N line and 312 ft. from E line of "B" lease, H. Griffith Sur.
Setting screen 5,200 ft.
Humble O. & R. Co.'s No. 8-B Kirby, 200 ft. N of No. 2, 100 ft. W of E line, Henry Griffith League.
Drlg. lime 3,694 ft.
McAlbert Oil Co.'s No. 3-B Heggins, 50 ft. S of N line and 50 ft. E of W line.
Drlg. rock 957 ft.
Sun Oil Co.'s No. 15 Wilburn, 405 ft. from E and 50 ft. from W line of lease, Wm. Hodges Sur.
Cutting and pulling liner 5,218 ft.
Sun Oil Co.'s No. 17 Wilburn tee, 188 ft. E of W line and 40 ft. S of N line and 120 ft. W of No. 16.
Drlg. salt 1,532 ft.
Texas Gulf Prod. Co.'s No. 12-A Kirby, 613 ft. N of S line, 85 ft. W of E line, W of Humble O. & R. Co.'s No. 8-B Kirby.
Drlg. rock 1,868 ft.
Texas Gulf Prod. Co.'s No. 3 T. S. Fitzgerald, 340 ft. S of N line and 60 ft. E of W line of lease.
Coring 4,119 ft.
Texas Gulf Prod. Co.'s No. 2 Morgan Fitzgerald, 400 ft. N of S line, C of Strip No. 3.
Drlg. lime 4,813 ft.
Yount Lee Oil Co.'s No. 28 Chambers County, 50 ft. N of S line, direct offset to Sun's No. 10 Chambers County, Wm. Bloodgood Sur.
Drlg. shale and lime 1,414 ft.

BOLING—FORT BEND COUNTY

Allied Minerals, Inc.'s No. 1 E. C. Farmer, James Scott League, 750 ft. SE of NW line and 150 ft. SW of NE line of Gulf Prod. Co.'s E. C. Farmer 50-ac. tract.
Replugging the hole.
Irwin Larsen et al's No. 1 J. R. Farmer, 100 ft. NW and 100 ft. SW from E cor. of 125-ac. lease, James Scott Sur.
Location.
Midland Oil Co.'s No. 1 P. F. Coulter, 150 ft. from S line, 4,174 ft. from W line of 100-ac. tract, Miller League No. 2.
Set screen; T.D. 4,186 ft.
Navarro Oil Co.'s No. 1 H. R. Farmer, 800 ft. from SW line and 100 ft. from SE line of 168-ac. tract in James Scott Sur.
Drlg. shale 2,536 ft.
Trans-State Oil Co.'s No. 1 Dipple, 480 ft. from NW and 347 ft. from SW lines of 33-ac. tract, E flank of dome.
Drlg. shale 3,410 ft.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 41 Moore, 3,372 ft. S along W line from NW cor. of James Frazier Sur., and 2,154 ft. at R/A.
Drlg. shale and lime 3,861 ft.
Gulf Prod. Co.'s No. 42 Moore, 345 ft. S. 306 ft. W of SW cor. of R.M.G. Co. Sur.
Drlg. gumbo and lime 1,275 ft.
Gulf Prod. Co.'s No. 43 Moore, 350 ft. E along S line of SW cor. of R.M.&G. Co. Sur. and 740 ft. N at R/A to said line of lease, 350 ft. E of No. 3 Moore.
Derrick.

RIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 45 Cade.
Drlg. sand and lime 3,598 ft.
Yount Lee Oil Co.'s No. 23 Smith.
D.S. stuck at 5,030 ft.; fishing.
Yount Lee Oil Co.'s No. 1-A Gordon-Viterbo, 123 ft. E of W line, 326 ft. S of N line of Lot 1, Martin Dunman Sur.
Drlg. shale 1,193 ft.
Yount Lee Oil Co.'s No. 1 Loustalbot, 300 ft. from N line, 121 ft. from E line of Lot No. 3, offset to No. 2 Stewart, Martin Dunman Sur.
Drlg. sand and boulders 1,635 ft.
Yount Lee Oil Co.'s No. 1 F. C. Pabst, 1,186 ft. S of N line and 1,186 ft. E of W line of Lot 32, Martin Dunman Sur.
Drlg. shale and lime 3,411 ft.
Yount Lee Oil Co.'s No. 44 Cade.
Testing; T.D. 5,145 ft.

DICKINSON—GALVESTON COUNTY

Humble O. & R. Co.'s No. 2-A Maco Stewart, 3,324 ft. S along E line of S bank of Bayou and 566 ft. W of E line at R/A. John Sellers Sur.
Rig up.
Humble O. & R. Co.'s No. 1 Schaper, C S½ of Blk. 15, or on line between Lots 3 and 4 and center N and S. W. K. Wilson Sur.
Coring sandy shale 5,216 ft.
Humble O. & R. Co.'s No. 1 H. O. and W. G. Jones, 750 ft. N of N bank of Bayou and center T and W. J. O. Sherman Sur.
T.D. 8,057 ft.; cmtd. 7-in. csg. at 8,010 ft.
Humble O. & R. Co.'s No. 1 A. F. Danielson, C of 20-ac. tract, Lots 5 and 6, C. A. Anderson Subd. of Lot 15, of the Righter Subd., John Sellers Sur.
Coring hard sand 8,696 ft.

BATSON—HARDIN COUNTY

John Deering's No. 1 Cruse.
7-in. csg. 5,520 ft.; T.D. 5,567 ft.; flowed 5,500 bbls. in various chokes in 24 hrs.; tubing pressure 600 lbs.
John Deering's No. 2 Hooks.
Drlg. shale 1,020 ft.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 11-N Jordit, 200 ft. due W of No. 11-R Jordit.
Clearing location.

SOUR LAKE—HARDIN COUNTY

Arlis Pet. Co.'s No. 1 Harkan and Langham.
Dig pits.
Alpha Pet. Co.'s No. 2-A Wm. Weiss, 100 ft. W of No. 2.
T.D. 6,808 ft.; set 5 9/16-in. drill pipe at 6,760 ft.; perforated csg. from 6,751-60 ft.
Sun Oil Co.'s No. 2 Bernard Corp., 150 ft. from N and W lines of Lot 11, H.T.&B. Sur., Sec. 69.
Fishing 7,914 ft.
Texas Co.'s No. 317 fee, 165 ft. S of No. 262, 320 ft. E of No. 274.
T.D. 1,800 ft.; P.B. to 1,463 ft.; 7-in. csg. P.B. to 1,235 ft.; running tubing.

GOOSE CREEK—HARRIS COUNTY

Humble O. & R. Co.'s No. 80 Simms-Smith, Scott Lower League, 1,000 ft. E of the most westerly W line, and 300 ft. N of the most northerly S line.
T.D. 6,254 ft.; P.B. to 6,222 ft.

PIERCE JUNCTION—HARRIS COUNTY

Gulf Prod. Co.'s No. 38 Taylor.
Drlg. gumbo and lime 2,868 ft.
Rio Bravo Oil Co.'s No. 27-A Settegast, 377 ft. S, 553 ft. W of NE cor. of Settegast "A" tract, James Hamilton Sur.
Standing 5,526 ft.
Rio Bravo Oil Corp.'s No. 9-A Settegast, 1,575 ft. N line, 350 ft. E line NE cor. "A" lease, J. A. Kopman Sur.
T.D. 5,411 ft.; standing.

MYKAWA—HARRIS COUNTY

J. W. Falvey's No. 2 Minnetex, 150 ft. from S line and 87.5 ft. from E line of Blk. 192, Wm. Lovett Sur.
13⅜-in. csg. 1,194 ft.; drlg. shale and lime 4,150 ft.
West Prod. Co.'s No. 1 Cora Holmes, C of 10ac. tract, A. J. Rothas Sur., Blk. 11.
10¾-in. csg. at 1,456 ft.; T.D. 1,456 ft.

TOMBALL—HARRIS COUNTY

Amerada-Stanolind O. & G. Co.'s No. 1 H. G. Felber, Elizabeth Smith Sur.
10¾-in. csg. 1,084 ft.
Amerada-Stanolind O. & G. Co.'s No. 2 Bode, 500 ft. from N line and 500 ft. from W line of 40-ac. lease, J. M. Hooper Sur.
Drlg. shale 5,446 ft.
Humble O. & R. Co.'s No. 1 Faris, 466 ft. from W line, 550 ft. from S line of 155-ac. tract, W. Usner Sur.
10¾-in. csg. 924 ft.; drlg. shale 5,306 ft.
Humble O. & R. Co.'s No. 4-A Quilter, 1,250 ft. from S line, 466 ft. from E line of 300-ac. tract, A. Senchel Sur.
Drlg. shale and lime 3,788 ft.
Humble O. & R. Co.'s No. 2 Theis, 2,718 ft. from N line, 584 ft. from E line of tract, C. N. Pillott Sur.
10¾-in. csg. 968 ft.; drlg. shale 4,790 ft.
Humble O. & R. Co. et al's No. 3 Rudel, 1,750 ft. N of S line, 185 ft. E of W line of 90-ac. tract, J. House Sur.
10¾-in. csg. 928 ft.
Humble O. & R. Co.'s No. 3 Treischel, 466 ft. from W line, 500 ft. from N line of 112-ac.
Top oil sand 5,543 ft.; 7-in. csg. 5,536 ft.; T.D. 5,594 ft.; tested S.W.; deepened to 5,599 ft.
Humble O. & R. Co.'s No. 2-A Weindorf, 700 ft. from N line, 317 ft. from W line, C. Geodrich Sur.
T.D. 5,575 ft.; 7-in. csg. 5,568 ft.; coring shale 5,593 ft.; I.P. 15 bbls. per hr. through ¼-in. choke; tubing pressure 350 lbs.; csg. pressure 650 lbs.
Humble O. & R. Co.'s No. 2 Martens, 1,908 ft. from S line, 1,368 ft. from E line of survey, Wm. Heard Sur.
Abd. 5,638 ft.
Texas Co.'s No. 3 Ziegler, 1,449 ft. E of W line and 446 ft. S of N line of lease, 930 ft. E of No. 1.
Location.

KITTRELL—HOUSTON AND WALKER COUNTIES

Boone Bros.' No. 1 Trinity State Bank, Chas. McEllis Sur.
Running csg. at 1,949 ft.
Humble O. & R. Co.'s No. 6 E. T. Shaw, 330 ft. from NW line, 990 ft. from SW line of lease, Charles McEllis Sur.
10¾-in. csg. 283 ft.; coring sand 1,716 ft.
Sun Oil Co.'s No. 2 Huffman, 660 ft. NW of No. 1, Charles McEllis Sur.
Drlg. shale 766 ft.

VANDERBILT—JACKSON COUNTY

Imperator Oil Co.'s No. 1 Dutton, S C of Lot No. 11, Blk. 25, 450 ft. S of R.R. and 1,350 ft. W line of townsite, Ray Musquis Sur.
Rigged up and S.D.
Turman Oil Co.'s No. 1 T. H. Miller, 150 ft. each way out of E 50 ac. of Miller 100-ac. tract in Ray Musquis Sur.
Rigging up.

BIG HILL—JEFFERSON COUNTY

Yount Lee Oil Co.'s No. 1-A Pipkin, 2,640 ft. S and 2,050 ft. W of NE cor. of survey. T.D. 6,341 ft.; sidetracked at 6,081 ft.; twisted off D.S. 6,138 ft.

FANNETT—JEFFERSON COUNTY

Gulf Prod. Co.'s No. 16 Thomas, 650 ft. N of S line, 165 ft. W of E line of W. H. Smith League.
Drlg. sand 4,140 ft.

CLEVELAND—LIBERTY COUNTY

Black Gold Pet. Oil Corp.'s No. 2 R. D. McDonald, 466 ft. W of most westerly S line and 466 ft. N of most northerly S line of survey, 933 ft. W of Gulf Prod. Co.'s No. 7-C Kirby Lbr. Co., T. Devers Sur.
Derrick.
William J. Colegrove et al's No. 1 State School Land & Dev. Co., 446 ft. from W line and 170 ft. from S line of survey, Clayton Harper Sur.
Location.
Gulf Prod. Co.'s No. 1 R. D. McDonald, 467 ft. from N and E lines of lease and survey, Chas. Smith Sur.
Rig up.

ESPERSON—LIBERTY COUNTY

General Crude Oil Co.'s No. 21 Esperson.
Drlg. shale 1,415 ft.
General Crude Oil Co.'s No. 1 W. D. Kay, Malcolm Duncan Sur., 1,537 ft. along N
Drlg. shale 6,630 ft.
General Crude Oil Co.'s No. 10 Davis, 2,000 ft. from E line, 660 ft. from S line of D. Kokernut Sur.
Drlg. shale 2,110 ft.

HANKAMER—LIBERTY COUNTY

Cretaceous Oil Co.'s No. 2 S. E. Exzell, 150 ft. S of N line, 100 ft. W of E line of Ezzell's 75-ac. tract, Levi Barrow Sur.
Location.
Gulf Prod. Co.'s No. 5 B. Gehr, 340 ft. from S line of lease, 640 ft. E of Naylor Oil Co.'s No. 7 Gehr, S. Kennedy Sur.
Location.
Gulf Prod. Co.'s No. 1 Myers, 2,777 ft. W and 340 ft. N from SE cor. of 202-ac. tract, H. Christman Sur.
Location.
Gulf Prod. Co.'s No. 4 Crow & Jacobs, 150 ft. E, 420 ft. N of SW corner of lease. Section 31, H & T C Survey.
Cmtd. 7⅝-in. csg.; T.D. 4,295 ft.; made 50 bbls. per hr. then sanded up.
Gulf Prod. Co.'s No. 1 Hankomer, 350 ft. W, 420 ft. N of SE corner of George-Stingier Survey.
Location.
Wilson-Broach Oil Co.'s No. 1 Barrow, 150 ft. N of S line, 100 ft. W of E line, W. M. Crook et al, Levi Barrow Sur.
Location.

HULL—LIBERTY COUNTY

G. R. Brown and S. F. Bashara's No. 1 David Hannah, Jesse Devore league, 200 ft. S line, 150 ft. E line, 42-ac. Gulf tract
Derrick.
Republic Prod. Co.'s No. 156 Dolbear, 178 ft. W of No. 68, 130 ft. E of No. 68, J. Devore League Sur.
Location.
Texas Co.'s No. 3 Barrow.
6⅝-in. csg. 3,819 ft.; S.D. 4,355 ft.

BUCKEYE—MATAGORDA COUNTY

United North & South Dev. Co.'s No. 1 Unit 4, Buckeye farm, J. C. Keller league, 214 ft. N line and 202 ft. E line of lease.
Shut down.

CONROE—MONTGOMERY COUNTY

Humble O. & R. Co.'s No. 6 Pfaeffilin, 413 ft. N of No. 1, 633 ft. from W line of lease, Wm. Real Sur.
Drlg. shale 855 ft.
Humble O. & R. Co.'s No. 73 South Tex. Dev. Co., 6,000 ft. E of most easterly W line, 466 ft. S of N line of Theo Slade Sur.
T.D. 5,130 ft.; P.B. to 4,954 ft.; abd.
Houston Oil Co.'s No. 12 Cartwright, 933 ft. E of No. 11, 933 ft. N of No. 9.
Drlg. shale 1,513 ft.
Sun Oil Co.'s No. 23 Foster, 799.5 ft. S of No. 12, 893 ft. W of No. 12, J. Brooker Sur.
Cmtd. csg. 5,140 ft.

SPLENDORA—MONTGOMERY COUNTY

Bryce McCandless et al's No. 1 Texas Long Leaf Lbr. Co., 330 ft. from N and E lines of the W½ of Blk. No. 8, Walker County School Land Sur.
Derrick.

ORANGE—ORANGE COUNTY

Trio Oil Co.'s No. 1 D. S. Comer, 69 ft. W of E line and 39 ft. S of N line of 5.33-ac. tract in W. M. Dyson Sur.
Drlg. gumbo 2,720 ft.

TOM O'CONNOR—REFUGIO COUNTY

Quintana Oil Co.'s No. 2-B O'Connor, 500 ft. from W line, 250 ft. from S line of M. L. White Sur.
T.D. 5,765 ft.
Quintana Oil Co.'s No. 6-A O'Connor, J. M. Swisher Sur., Blk. 4.
Prepare to spud.

PORT NECHES—ORANGE COUNTY

Port Neches Pet. Corp. et al's No. 1 W. B. Organ, 450 ft. from NE line and 150 ft. from NW line of A. Schramm Sur., S of Port Neches Field.
T.D. 7,475 ft.; set whipstock at 3,300 ft.
Texas Co.'s No. 3-B Polk, 200 ft. S, 450 ft. W of SE cor. of Mary E. Hall Sur. No. 1.
T.D. 5,933 ft.; pulled in derrick.
Texas Co.'s No. 3 Orange National Bank.

750 ft. S of N line and 295 ft. E of W line of lease, Jacob Beaumont Sur.
Running 13⅜-in. csg. 2,186 ft.
Texas Co.'s No. 4-B Polk, 760 ft. S and 1,460 ft. W from NE cor. of lease, Jacob Beaumont Sur.
Location.
Texas Co.'s No. 5-B Polk, 750 ft. S and 850 ft. W from NE cor. of lease, Jacob Beaumont Sur.
Location.
Texas Co.'s No. 6-B Polk, 750 ft. S and 250 ft. W from NE cor. of lease, Jacob Beaumont Sur.
Location.

LIVINGSTON—POLK COUNTY

Gem Oil Co.'s No. 6 Davis & Holmes, 663 ft. from W and 662 ft. from N line of survey, A. Viesca Sur.
Rig up.
J. Z. Werby and Shell Pet. Corp.'s No. 4 Dick & Faling, 660 ft. NW of No. 3, 660 ft. from W line, A. Viesca Sur.
10¾-in. csg. 587 ft.; T.D. 604 ft.

GRETA—REFUGIO COUNTY

Atlantic and Stanolind's No. 3-F O'Brien. T.D. 6,336 ft.; P.B. and set csg. 2,329 ft.; comp. for gas well.
Hewitt & Daugherty's No. 12 Lambert.
Rig up.
Humble O. & R. Co.'s No. 1-C O'Connor, 210 ft. from N line, 210 ft. from S line of N. S. Crunk and M. J. Ximines Sur.
Top sand 4,356 ft.; 7-in. csg. 4,355 ft.; T.D. 4,372 ft.; running tubing.

REFUGIO—REFUGIO COUNTY

Houston Oil Co.'s No. 18 F. B. Rooke, 330 ft. E of W line, 330 ft. S from N line in 200-ac. lease.
Set screen and liner 4,926 ft.
Houston Oil Co.'s No. 19 P. H. Rooke, 660 ft. N of No. 18 P. H. Rooke.
Drlg. shale 4,893 ft.
Houston Oil Co.'s No. 20 P. H. Rooke, 305 ft. NE of SW line, 137 ft. E of No. 18.
Derrick.
Houston Oil Co.'s No. 21 P. H. Rooke, Thomas Mullen grant, 990 ft. from E line, 697 ft. SW from No. 18.
Digging pits.
United Gas Co.'s No. 10 Wilson Heard, runs 3,062 ft. along NE line Wilson Heard lease from S cor. of Houston Oil Co.'s F. W. Heard lease, 4,579 ft. to a point, thence at R/A to line 330 ft. to point of location.
Derrick.
United Gas Co.'s No. 4 Mitchell, 150 ft. from NE cor. of 150-ac. lease.
R.U. to W.O.

COLLETTO CREEK—VICTORIA COUNTY

Albert Plummer's No. 4 Terrell.
T.D. 2,304 ft.; pulled screen.
Cox & Hooper's No. 2 Zimmer, 330 ft. from NW and SW lines of 135-ac. tract, Manchola Sur.
Drlg. 800 ft.
Nutex Oil Co.'s No. 4 Zimmer, 330 ft. from NW line, 922 ft. from SW line of Manchola Sur.
T.D. 2,820 ft.; L.P. 50 bbls.; tubing pressure 1,150 lbs.

McFADDIN-O'CONNOR DISTRICTS—VICTORIA AND REFUGIO COUNTIES

Sun Oil Co.'s No. 12 Janner.
Coring 1,422 ft.
Texas Co.'s No. 9 McFaddin.
Location.

LOUISE—WHARTON COUNTY

Pure Oil Co.'s No. 1 John Macha, 318 ft. from NW line and from SE line of F. Walnut Sur., and 467 ft. from NE line of 101.53-ac. lease, M.&C. Sur. No. 35.
Location.
Pure Oil Co.'s No. 1 G. Wharton Est., 1,497 ft. from SW line and 318 ft. from SE line of F. Walnut Sur., Abst. A-35.
T.D. 6,510 ft.; P.B. 2,900 ft.
Pure Oil Co.'s No. 2 Stewart, Morris & Cummings Sur., Sec. 25, 990 ft. out of SW cor. of 160 acres.
T.D. 5,140 ft.; prepare to test.
Pure Oil Co.'s No. 3 Stewart, 1,000 ft. SW and 318.25 ft. SE from N cor. of W. L. Stewart's 160-ac. tract, Morris and Cummings Sur. No. 25.
Location.
Pure Oil Co.'s No. 4 Stewart, 485 ft. SW, 330 ft. NW of E cor. of W. L. Stewart's 160-ac. tract, Morris and Cummings Sur. No. 25.
Building derrick.

BAY ST. ELANE—TERREBONNE PARISH

Texas Co.'s No. 9 Bay St. Elane.
Drlg. shale 5,647 ft.

CALLIOU ISLAND—TERREBONNE PARISH

Texas Co.'s No. 17 Calliou Island, Sec. 39-13-23.
Rig up.
Texas Co.'s No. 18 Calliou Island.
Drlg. shale 3,376 ft.

SOUTH LOUISIANA FIELDS

BLACK BAYOU—CAMERON PARISH

Shell Pet. Corp.'s No. "D" Watkins, 510 ft. S, 2,470 ft. W of NE cor. Sec. 18-12s-13w. Moving in derrick.
Shell Pet. Corp.'s No. 21 Watkins, 1,570 ft. E of NW cor. Sec. 17-12s-13w.
Location.
Shell Pet. Corp.'s No. 3 State.
T.D. 6,499 ft.; P.B. 6,160 ft.

BOSCO—ACADIA AND ST. LANDRY PARISHES

Standard Oil Co. of Kansas' No. 1 Mouton, 1,480 ft. E, 250 ft. S of NW cor. of SW¼ Sec. 24-8s-3e.
7-in. csg. 3,507 ft.; T.D. 3,607 ft.; I.P. 24 bbls. per hr. through 15/64-in. choke; tubing pressure 1,350 lbs.; csg. pressure 490 lbs.
Superior Oil Prod. Co.'s No. 5 Comeaux, 2,-373 ft. S, 1,062 ft. W of NE cor. Sec. 34-8s-2e.
Drlg. sand and shale 7,174 ft.
Superior Oil Prod. Co.'s No. 3 Arceneaux, 1,271 ft. S, 1,580 ft. W of NE cor. Sec. 33-8s-3e.
Drlg. sandy shale 5,967 ft.
Superior Oil Prod. Co.'s No. 4 Comeaux, 1,-430 ft. S, 2 deg. W, 350 ft. S, 89 deg. E out of NW cor. NE¼ Sec. 34.
T.D. 7,845 ft.; 9⅝-in. csg. 7,835 ft.
Superior Oil Prod. Co.'s No. 2 Johnson, 1,-128 ft. N, 672 ft. E from SW cor. of NE¼ Sec. 34.
Drlg. sand and shale 6,764 ft.
Superior Oil Prod. Co.'s No. 1 Coralie Domingua, 3,998 ft. S, 767 ft. W of NE cor. Sec. 34-8s-3e.
T.D. 8,740 ft.; 7-in. csg. 8,727 ft.
Superior Oil Prod. Co.'s No. 7 Larcade, 2,-467 ft. E, 190 ft. N of SW cor. N½ NW Sec. 35-8s-3e.
T.D. 8,700 ft.; 7-in. csg. 8,680 ft.
Superior Oil Prod. Co.'s No. 1 Moise LaVergne, 269.7 ft. W and 93 ft. N of SE cor. of Sec. 28-8s-3e.
Drlg. sand 7,550 ft.
Superior Oil Prod. Co.'s No. 1 C. B. Hermandez, 2,791.6 ft. S, 330 ft. W of NE cor. of NW¼ Sec. 34-8s-3e.
7-in. csg. 8,639 ft.; T.D. 8,659 ft.; I.P. 397 bbls. in 24 hrs. through 9/64-in. choke.

DARROW—ASCENSION PARISH

Humble O. & R. Co.'s No. 5 Community, 228 ft. SW of NE line of section, 200 ft. at R/A to east bank of river, Sec. 33-10s-2e.
Building derrick.
Humble O. & R. Co.'s No. 4 Community, 4,825 ft. from NE cor. and 288 ft. S of N line at R/A, Sec. 33-10s-2w.
Digging cellar.

EDGERLY—CALCASIEU PARISH

Emerson Oil Co.'s No. 1 Bright-Penn.
T.D. 3,727 ft.; pumping 240 bbls. per day.

CAMERON MEADOWS—CAMERON PAR.

Burton-Sutton's No. 1 School Land.
I.P. 5 bbls. per day through ¼-in. choke; T.D. 4,969 ft.
Burton-Sutton Oil Co.'s No. 4 School Land, 2,891 ft. W and 150 ft. N of SE cor. of Sec. 16-4s13w.
Derrick.
Magnolia Pet. Co.'s No. 10 Cameron Meadows, 506 ft. S of No. 9.
T.D. 3,530 ft.; 9⅝-in. csg. at 3,512 ft.
Texas Co.'s No. 1 Miami Corp.
Drlg. shale 9,020 ft.

CHOCTAW DOME—IBERVILLE PARISH

Standard Oil Co.'s No. 5 Gay, 2,450 ft. S and 425 ft. E of NW cor. of NE Sec. 32-9s-11e.
Drlg. shale 2,529 ft.

DOG LAKE—TERREBONNE PARISH

Texas Co.'s No. 11 State, 150 ft. N and 2,474 ft. W, SE cor. Sec. 31-21s-16e.
Derrick.

GARDEN ISLAND BAY—TERREBONNE PARISH

Texas Co.'s No. 13 State, 3,391 ft. S and 1,-504 ft. W of NE cor. Sec. 107-23-32.
Rig up.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 6, Alliance Trust, 667 ft. E, 1,787 ft. S line of lease, Sec. 34-11s-1w.
Sidetracked at 7,669 ft.

HACKBERRY—CAMERON PARISH

Calcasieu Oil Co.'s No. 4 Hanzen, 1,650 ft. W and 780 ft. N of SE cor. Sec. 11-12s-10w.
Drlg. hard lime and shale 6,886 ft.
Calcasieu Oil Co.'s No. 3 H. C. Hansen, 150 ft. S and 150 ft. E of NW cor. of lease. Sec. 13-12s-10w.
Drlg. sandy shale 5,927 ft.
Gulf Prod. Co.'s No. 17 Erwin.
Drlg. sand and lime 5,269 ft.
Gulf Prod. Co.'s No. 14-B State, 610 ft. S, 1,866 ft. E of NE cor. Sec. 13-12s-10w.
Derrick.
Sutton Oil Co.'s No. 1 Ellender, 616 ft. S and 50 ft. E of NW cor. SW¼ SE¼ Sec. 22-12s-10w.
Drlg. gumbo 774 ft.
Sutton Oil Co.'s No. 2 Portier, 717 ft. S and 50 ft. W of NW cor. SW¼ SE¼ Sec. 22-12s-10w.
Location.
Texas Co.'s No. 14 State, 500 ft. SE of No. 13, Sec. 13-12s-10w.
Derrick.
Yount Lee Oil Co.'s No. 1-A Gulf Land, 2,000 ft. S and 50 ft. E of the NW cor of Sec. 22-12-10.
Rig up.
Yount Lee Oil Co.'s No. 12 Gulf Land, 1,625 ft. S and 350 ft. W of NE cor. of NW of Sec. 14-12s-10w.
Drlg. sand 5,921 ft.

NEW IBERIA—IBERIA PARISH

Harrison & Abercrombie's No. 3 Schwing, 500 ft. N and 50 ft. E of No. 2, Sec. 24-12s-5w.
Drlg. shale 6,180 ft.
Iberia Oil Corp. and Y. D. Spell's No. 2 Bernard, 150 ft. E of No. 1, Sec. 54-12s-7e.
Drlg. shale and lime 4,985 ft.
Iberia Oil Co. and Y. D. Spell's No. 3 Bernard, 300 ft. N of No. 2, Sec. 54-12s-7e.
Drlg. shale 2,766 ft.
Texas Co.'s No. 1 Hanzen, NE along NW line of lease 508 ft., thence 150 ft. E at R/A, Sec. 54-12s-7e.
Drlg. sandy shale 7,642 ft.

IOWA—CALCASIEU AND JEFF DAVIS

Shell Pet. Corp.'s No. 2 Ardoin.
Building derrick.
Shell Pet. Corp.'s No. 13 Hyde, 990 ft. S, 330 ft. E of NW cor. NE Sec. 13-9s-7w.
Coring sand 7,003 ft.
Shell Pet. Corp.'s No. 5 Stafford, 1,650 ft. from S line, 330 ft. W of NE cor. of lease, Sec. 18-9s-6w.
Reaming; T.D. 6,783 ft.
Shell Pet. Corp.'s No. 14 Heyd, 330 ft. N, 1,819 ft. W of SE cor. of NE¼ Sec. 13.
Coring sand 6,569 ft.

JENNINGS—ACADIA PARISH

Simon-Tolson and Gardner's No. 1, 1,020 ft. due E and 250 ft. due W of SE cor. Sec. 46-9s-2w.
S.D. 1,870 ft.
Yount Lee Oil Co.'s No. 14 Housierre-Latrielle, 260 ft. N of No. 12, Sec. 47-9s-3w.
D.S. stuck 7,812 ft.
Yount Lee Oil Co.'s No. 10 Housierre-Latrielle, 5,435 ft. due E, 1,070 ft. due N of SW cor. of section.
Drlg. sand 7,802 ft.

LAKE BARRE—TERREBONNE PARISH

Texas Co.'s No. 31 Lake Barre.
Drlg. shale 3,230 ft.
Texas Co.'s No. 14 Lake Barre.
D.S. stuck 2,999 ft.
Texas Co.'s No. 15 Lake Barre.
Drlg. salt 2,722 ft.

LAKE PELTO—TERREBONNE PARISH

Texas Co.'s No. 12 Lake Pelto.
Drlg. sandy shale 6,704 ft.
Whitstone O. & G. Co.'s No. 1 Buckley, 300 ft. S and E of NW cor. SW SW Sec. 35-19s-16e.
T.D. 3,062 ft.; fishing.

LAKE WASHINGTON—PLAQUEMINES PARISH

Humble O. & R. Co.'s No. 23 Cockrell-Moran, 650 ft. N and 21 deg. 30 min. E of No. 2 in Twp. 20s-26e.
T.D. 5,301 ft.; set whipstock at 1,270 ft.

LEESVILLE—LAFOURCHE PARISH

Gulf Prod. Co.'s No. 5 Bernard.
T.D. 3,59 7ft.; set whipstock 3,569 ft.
Gulf Prod. Co.'s No. 10 Bernard, 1,832 ft. E, 958 ft. S of NW cor. Sec. 26-21s-22e.
Derrick.
Emerald Pet. Co.'s No. 10 State, west bank, 300 ft. S of well No. 1.
Location.
Emerald Pet. Co.'s No. 11 State, east bank, 227 ft. N of well No. 1.
Location.
Emerald Pet. Co.'s No. 12 State, east bank, 250 ft. S of well No. 1.
Location.
Lincoln Oil Co.'s No. 5 State.
Location.
Texas Co.'s No. 31 Leesville.
D.S. stuck 3,619 ft.
Texas Co.'s No. 23 Leesville.
Rig up.
Texas Co.'s No. 27 Leesville.
Bldg. derrick.
Texas Co.'s No. 30 Leesville, 1,075 ft. S, 310 ft. E, NW cor. Lot 6, Sec. 26-21s-22w.
T.D. 4,363 ft.; P.B.

LOCKPORT—CALCASIEU PARISH

Magnolia Pet. Co.'s No. 5-A Farquar (W.O.).
T.D. 6,475 ft.; prepare to deepen.
Magnolia Pet. Co.'s No. 8 Farquar (W.O.).
T.D. 6,722 ft.; flowing 700 bbls., 50% S.W.

PORT BARRE—ST. LANDRY PARISH

Gulf Prod. Co.'s No. 11 Wilson Cochran, 1,-500 ft. S, 9 deg., 6 min. W from most southerly NE cor. of Texas Co.'s Botney Bay lease, Sec. 4-6s-5e.
Drlg. shale 3,115 ft.

ROANOKE—JEFFERSON DAVIS PARISH

Humble O. & R. Co.'s No. 2 Kratzer, 440 ft. from W line, 440 ft. from S line of 120-ac. tract, Sec. 11-4w-9s.
T.D. 8,671 ft.; cored sand and shale showing oil from 8,650-67 ft.; 7-in. csg. 8,043 ft.; I.P. 479 bbls. in 22 hrs. through 3/16-in. choke; tubing pressure 2,550 lbs.; csg. pressure 2,900 lbs.
Humble O. & R. Co.'s No. 1 Clayton, 2,980 ft. S and 440 ft. W, NE cor. Sec. 10-9s-4w.
Rig up.
Humble O. & R. Co.'s No. 2 Devilbiss, 1,320 ft. W, 466 ft. S of NE cor. Sec. 14-9s-4w.
Perforating csg. from 9,203-12 ft.; T.D. 9,-216 ft.
Shell Pet. Corp.'s No. 1 Jarnigan, 330 ft. E, 660 ft. S, NW cor. Sec. 12-9s-4w.
D.S. stuck; T.D. 10,001 ft.
Shell Pet. Corp.'s No. 1 Carter, 660 ft. N and 330 ft. W of SE cor. NW Sec. 1-9s-4w.
Coring shale 8,653 ft.
Shell Pet. Corp.'s No. 3 Kratzer, 1,320 ft. E and 440 ft. N of SW cor. of lease.
Building derrick.

STARKS—CALCASIEU PARISH

Gulf Prod. Co.'s No. 33 Lutcher Moore, Sec. 19-9s-8w.
Drlg. shale 3,309 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 12 Yount Lee Oil Co., 300 ft. S of No. 11, in line with Nos. 9 and 11, Sec. 12-13s-3w.
Fishing 8,196 ft.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 724 fee.
Drlg. shale 3,809 ft.
Union Sulphur Co.'s No. 807 fee.
Drlg. shale 2,355 ft.
Union Sulphur Co.'s No. 790 fee, 929 ft. S and 302 ft. W of C Sec. 29-9s-10w.
Swbd. S.W.; P.B. from 5,391 ft. to 5,-185 ft.; testing.

WHITE CASTLE—IBERVILLE PARISH

Shell Pet. Corp.'s No. 1 White Castle Shingle Co., 1,830 ft. W, 100 ft. S from NE cor. of lease.
Drlg. salt 5,097 ft.
Shell Pet. Corp.'s No. 1 Adams, 2,340 ft. N, 100 ft. E of SW cor. of lease.
Running 13⅜-in. csg.; T.D. 2,119 ft.

MISCELLANEOUS WILDCATS

TEXAS

BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 1 Houston Farm Dev. Co., 1,414 ft. N, 316 ft. W of SE cor. of L. Bachelder Sur.
Ran 302 ft. of 7-in. liner; D.S. stuck; prepare to wash over fish; T.D. 6,992 ft.; sand.
George Strake's No. 2 Truska, 991 ft. W of No. 1, H.T.&B. Sur., Sec. 7.
S.D. 6,060 ft.
Holt et al's No. 1 Griffith, J. B. Bailey Sur.
T.D. 4,200 ft.; waiting orders.
Showers & Moncrief's No. 1 Hughey, 5,500 ft. NW of discovery well, in center of Lot 18, H.T.&B. Sur., Sec. 29, Abst. 292.
Location.
Texas Co.'s No. 1 Freeport Sulphur Co., 2,-764 ft. N, 1 deg., 40 ft. W and 1,184 ft. S, 88 deg., 20 ft. W of NW cor. of S. F. Austin Sur., Abst. No. 35, being in the Conception Areola Sur.
Building derrick foundation.

CALHOUN COUNTY

Steinberger Pet. Co.'s No. 1 W. A. Shofner, 330 ft. from S and E lines of 100-ac. tract in M. Sanches Sur.
Drlg. shale 4,210 ft.

CHAMBERS COUNTY

Humble O. & R. Co.'s No. 1 Middleton, 466 ft. each way out of the SW cor. of survey. Pulling screen and liner to D.D. after killing well.
South Gulf Oil Co.'s No. 1 J. T. White, Luke Briam Sur., 460 ft. from N line, 460 ft. from W line of 47.9-ac. tract.
Derrick.
Sun Oil Co.'s No. 1 Hamilton, 1,400 ft. from N line, 1,400 ft. from W line of survey, T.&N.O. Sur., Sec. 128.
Coring shale 3,940 ft.

FORT BEND COUNTY

W. A. Shafer et al's No. 1 V. B. Bortash, 693 ft. SW of NE line and 1,003 ft. NW of SE line of Sec. 52, H.&T.C. Sur.
S.D. 2,900 ft.
Turnbull & Irwin's No. 1 Herman Hospital, 100 ft. W of E line, 350 ft. N of SL of 446-ac. tract, J. H. Cartwright Sur.
Drlg. shale 2,874 ft.
George White et al's No. 1 M. M. Cravins, 1,000 ft. from N, 300 ft. W of SW cor. of survey, B.B.B.&C. Sur. No. 8.
Rig up.

GALVESTON COUNTY

Gillock Pet. Co.'s No. 2 Maco Stewart, 900 ft. N and 150 ft. W of No. 1, Alex Farmer Sur.
T.D. 1,500 ft.; waiting on surface pipe; S.D.
Texana Gulf Oil Corp.'s No. 1 Thomas Shaw (200 acres), 150 ft. NW line, 155 ft. NE line, Lot 66, Sec. 7, Hall & Jones, Galveston Island.
S.D. 6,512 ft.

GRIMES COUNTY

Hubert Holt et al's No. 1 Simon Fuqua, 1,200 ft. N of S line and 400 ft. W of E line of 177-ac. lease and survey, Moses Evans Sur.
S.D. 3,080 ft.
Dr. Marshall et al's No. 1-B Todd, 300 ft. from E line and 175 ft. from N line of 150-ac. tract in extreme NW cor. of county (25 ft. N of No. 1).
S.D. 2,005 ft.
Roan et al's No. 1 S. W. Sealy, 3,474 ft. N of S line and 350 ft. E of W line of survey, B. F. Smith Sur., 2 miles SW of Kellum Springs.
S.D. 2,650 ft.

HARDIN COUNTY

Frazier & Greer's No. 1 Sternberger Lbr. Co., 1,325 ft. S and 400 ft. W of the NE cor. of a 115-ac. tract, J. Pearson Sur.
Derrick.

HARRIS COUNTY

Cockburn Oil Co. and Frazier's No. 1 Herman Hospital, 910 ft. N, 300 ft. W of SE cor. of tract, William Hardin Survey.
Coring shale 7,213 ft.
Esco Oil Co.'s No. 1 E. P. Seureau, 3,333 ft. from W line and 2,215 ft. from S line of 350-ac. tract, W. P. Harris Sur., Abst. A-30.
S.D. 6,023 ft.
Eureka Heights' No. 1 Varner, 400 ft. from S line of 107.23-ac. tract and 4,173 ft. from E line of H. Rinerman Sur.
10-in. csg. 1,000 ft.
T. S. F. Oil Co.'s No. 1 J. B. Hine, Arthur McCormick Sur., Abst. 46.
T.D. 3,525 ft.; 7-in. csg. 3,508 ft.
C. C. Foster et al's No. 1 H. K. Johnson, 2,000 ft. from S line and C of E and W lines of G.C.&S.F. Sur.
Drilled 25 ft. and S.D.
Hill & Hill's No. 1 Wharton, 466 ft. from NW cor. Sec. 5, W.C.R.R. Sur.
Drlg. shale 4,260 ft.
W. U. Paul's No. 2 House, 100 ft N of No. 1, M. Magruder Sur.
Drlg. shale 6,459 ft.

HOUSTON COUNTY

Adams et al's No. 1 Sanders, 330 ft. from S line, 330 ft. from W line of 55-ac. tract of lease, J. Thomas Sur.
T.D. 2,850 ft.; to make electrical coring test.
Sterling O. & R. Co.'s No. 1 Bruton, 3,350 ft. from E line and 5,000 ft. from S line of survey, Barton Clark Sur.
Abd. 3,550 ft.

JACKSON COUNTY

A. M. Harris' No. 1 Whitley, 300 ft. out of SE cor. of F. G. Keller Sur.
Location.
Shell Pet. Corp.'s No. 1 W. W. McCrary, 460 ft. out of SE cor. of 50-ac. tract, A. Kountze Sur.
Cmtd. surface csg. 1,311 ft.

JASPER COUNTY

Republic Prod. Co. and Houston Oil Co.'s No. 1 Sabine Tram. Co., 330 ft. out of NW cor. Sec. 71, H.&T.C. Sur.
20-in. csg. 20 ft.; drlg. shale 1,600 ft.

JEFFERSON COUNTY

Sun Oil Co.'s No. 1 H. Long, 1,500 ft. E line, 990 ft. E line of lease.
Underreamed from 5,500-5,540 ft. and cmtd. back to 5,480 ft.; setting 5-in. screen.
Sun Oil Co.'s No. 1 Hebert & Braussard, 6,-890 ft. NW along SW line and 660 ft. NE at right angles to SW line, B. Blackman Sur., Abst. No. 2.
Rig up.

LIBERTY COUNTY

R. M. Bruner et al's No. 1 N. Bell, 150 ft. from N line and 150 ft. from W line of Bell's 187-ac. tract, H.&T.B. Sur. No. 4.
Rigging up.
Extension Oil Co.'s No. 1 J. A. Lovett, 330 ft. from E and 600 ft. from S line of lease.
P. P. Deavers Sur.
T.D. 4,048 ft.; to install heavier rig.
J. W. Frazier et al's No. 2 Lynott & Buffum, 466 ft. from N and E lines of 40-ac. tract in extreme SE part of survey, James Robeson Sur.
Clearing location.
Liberty-Independent Oil Co.'s No. 1 J. M. Neal, 3,550 varas from E line and 500 varas from N line of Samuel Strong Sur.
Drlg. sandy shale 3,860 ft.
A. L. Maxwell's No. 1 M. P. Hinciliff, 300 ft. from E line and 1,000 ft. from the N line of survey, H.&T.C. Sur., Sec. 10s.
Waiting on csg. 580 ft.
Thomas et al's No. 1-A Eicke, 660 ft. from

W line and 2,350 ft. from S line of tract in Green Sur.
T.D. 5,947 ft.; 4½-in. csg. at 5,029 ft.

MADISON COUNTY

Madisonville Pet. Co.'s No. 1 Cannon, 660 ft. N of S line, 440 ft. E of W line of 185-ac. tract, J. V. Phillips Sur. Location.

MATAGORDA COUNTY

Cockburn Oil Co.'s No. 6 Hawkins, 2,660 ft from NW line, 1,200 ft. from SW line of McCarthy Sur.
Abd. 5,803 ft.

Dr. Griffith's No. 1 fee, 3,000 ft. from F line and 3,000 ft. from W line of Wm. H Bell Sur.
Rigging up and S.D.

Horace M. Smith, Inc.'s No. 1 Wadsworth ranch, 150 ft. out of S cor. of Lot No. 1 Blk. S, R. Fisher Sur.
Drlg. shale 5,306 ft.

MONTGOMERY COUNTY

Reynolds Drlg. Co. et al's No. 1 Mrs. Clara B. Stewart, 330 ft. S and E of most easterly inner cor. of 595-ac. tract, John Corner Sur.
S.D. 5,500 ft.

Trans State Oil Co.'s No. 1 Foster, 700 ft. E of W line, 2,000 ft. N of S line, Lot 27. Drlg. shale 1,710 ft.

Woodard-Smith-Cooper's No. 1 J. V. Scott. F. A. B. Wheeler Sur.
7-in. csg. 3,137 ft.

ORANGE COUNTY

Blue Line Oil Co.'s No. 1 Godwin, Richard Ballew Sur., 300 ft. from E line and 150 ft. from NE line of Godwin 20-ac. tract
S.D. 2,770 ft.

Ellis Oil Co.'s No. 1 G. W. Pell, 100 ft. from N and 300 ft. from W line of Pell tract in the J. M. Henerie Sur.
Drlg. shale 1,520 ft.

POLK COUNTY

Howard Dailey et al's No. 1 Z. B. Knox 1,450 ft. W and 1,920 ft. S of NE cor of F. Chairs Sur., 16 miles NE of Corrigan.
S.D. 60 ft.

J. F. Anderson's No. 1 E. L. Duke (O.W.D D.), 400 ft. from E and 350 ft. from S of SW cor. of P. Michelick 50-ac. lease, Abst 59, P. J. Mineral Sur.
Waiting on a new mud pump; T.D. 5,304 ft.

J. W. Leggett et al's No. 1 Bergman, C of 294-ac. tract, or 1,100 ft. W of H.E.&W.T. R.R., J. T. Pinkney Sur.
Rig up.

Dick Schwab's No. 1 Lynch, 330 ft. out of NW cor. of 200-ac. tract in the George Jameson Sur.
Location.

E. A. Thompson's No. 1 Haynes, 990 ft. out of NW cor. of 320-ac. tract and survey, J. Whitmire Sur., E of Leggett.
10¾-in. csg. 280 ft.

REFUGIO COUNTY

Cecil Hagen et al's No. 1 Edith Clarkson. 1,736 ft. from N line, 3,820 ft. from E line of J. Coughlin Sur.
Location.

Magnolia Pet. Co.'s No. 1 Woods, 330 ft. from S and W lines of S. Turner Sur.
Drlg. 1,210 ft.

SAN AUGUSTINE COUNTY

Fidelity Exploration Co.'s No. 2 Bryan & Flournoy, 400 ft. from No. 1.
T.D. 1,565 ft.

SAN JACINTO COUNTY

Ralph Sturam et al's No. 1 R. B. Love et al, 475 ft. S of N line and 2,000 ft. W of E line of 177-ac. tract, Drury McGee Sur. Location.

TRINITY COUNTY

Boone Bros.' No. 1-C Texas Long Leaf Lbr. Co., C of 80-ac. tract, Martinez Sur.
Lost hole 1,230 ft.; skidded 14 ft. west; drlg. 1,980 ft.

WALKER COUNTY

Boone Bros.' No. 1-D Texas Long Leaf Lbr. Co., 330 ft. E and 275 ft. N of SW cor. of 112.6-ac. tract, Mary Milsap Sur.
Rig up.

S. E. Gray's No. 1 Winzell, 1,200 ft. N and 1,000 ft. E of most southerly S line of survey.
Derrick.

WALLER COUNTY

Smith et al's No. 1 J. S. Garrett, 4,840 ft. NW and 325 ft. NE from SE cor. of S. M. Williams Sur., 3 miles N of San Felipe.
Drlg. shale 4,415 ft.

WASHINGTON COUNTY

Arkansas Fuel Oil Co.'s No. 1 Witschark, 100 ft. NW of Bruten, 100 ft. S of the center of a 65-ac. tract, J. D. Miller Sur.
10¾-in. csg. 300 ft.; T.D. 310 ft.

WHARTON COUNTY

John Deering's No. 1 C. T. and D. Kountze, 1,320 ft. from N line, 330 ft. from E line of S.A.&M.G. Sur., Sec. 1, Abst. 328.
Coring sand 5,583 ft.

Texas Co.'s No. 1 Pierce Estate, 4,850 ft. S, 34 deg. E and 4,300 ft. N, 56 deg. E from W cor. of Tract 2, I.&G.N. Sur. No. 38.
Drlg. shale 3,310 ft.

SOUTH LOUISIANA
ACADIA PARISH

Humble O. & R. Co.'s No. 1 American Rice Mills, 660 ft. S and 1,320 ft. W from NE cor. Sec. 27-10s-1e.
Coring sandy shale 8,604 ft.

Superior Oil Co. et al's No. 1 A. S. Newman, 2,000 ft. N and 1,120 ft. E of SW cor. Sec. 24-7s-1w.
Sidetracked at 4,845 ft.; drlg. shale 4,976 ft.

AVOYELLES PARISH

Bell Drlg. Co.'s No. 2 Thompson, 450 ft. S, 860 ft. E, NW cor. NE¼ Sec. 11-2n-5e.
Rig up.

Southern State Pet. Co.'s No. 1 Boyette, 330 ft. N and 330 ft. E of SW cor. Sec. 28-3n-5e.
Drlg. gumbo 8,383 ft.

BEAUREGARD PARISH

Chew & Kirby's No. 1 Long Bell Lbr. Co., 330 ft. S and W of C of NE¼ Sec. 26-2s-8w.
Rig up.

Richardson & Martin's No. 1 Southwest Lbr. Location.

CALCASIEU PARISH

Fred Oil Co.'s No. 2 Faizst, 262 ft. E and 83 ft. S of NW cor. SE¼ Sec. 26-8s-10w.
Spudded and S.D.

Fohs Oil Co.'s No. 1 McIvor, 330 ft. S and W of NE cor. Sec. 14-9s-8w.
Location.

Fohs Oil Co.'s No. 2 Castle, located in C of NE¼ of SW¼ Sec. 14-9s-8w.
Drlg. shale 1,385 ft.

Fohs Oil Co.'s No. 3 Castle, 990 ft. due E of producer in SW¼ Sec. 13-9s-8w.
Drlg. shale 2,766 ft.

Fohs Oil Co.'s No. 4 Castle, 330 ft. S and 330 ft. W of C Sec. 13-9s-8w.
Drlg. shale and lime 4,085 ft.

Gulf Prod. Co.'s No. 1 H. Starks et al, 1,650 ft. W and 1,980 ft. S of NE cor. Sec. 26-11s-12w.
Drlg. shale 7,858 ft.

Nicholas McCaleb's No. 1 Grey, 2,200 ft. S, 1,200 ft. E of NW cor. Sec. 22-8s-13w.
Drlg. gumbo 50 ft.

Texas Co.'s No. 1 Nickerson, 3,139 ft. N and 3,238 ft. W of SE cor. Sec. 12-9s-8w.
T.D. 6,721 ft.; 7-in. csg. 6,709 ft.

Union Sulphur Co.'s No. 3 State, 2,135 ft. S, 2,340 ft. E of NW cor. Sec. 12-9s-8w.
Location.

Union Sulphur Co.'s No. 1 Castle, 326 ft. N and E of NW Sec. 13-9s-8w.
Drlg. shale 6,955 ft.

Union Sulphur Co.'s No. 1 Buhler, 1,485 ft. N and 425 ft. W of SE cor. Sec. 11-9s-8w.
Coring sandy shale 6,968 ft.

Union Sulphur Co.'s No. 2 Barbe, 396 ft. N and 329 ft. W of SE cor. of NE¼ Sec. 11-9s-8w.
Drlg. shale 755 ft.

Union Sulphur Co.'s No. 1 Reeves-Mayo, 650 ft. NE of discovery.
Location.

Union Sulphur Co.'s No. 2 Castle, 660 ft. E of No. 1 Castle.
Drlg. sandy shale 4,728 ft.

Wheeler Oil Co.'s No. 1 Gabbert, 1,322 ft. E and 548 ft. N of SW cor. of Sec. 28-9s-7w.
Drlg. shale 3,400 ft.

EAST FELICIANA PARISH

Thompson Creek Oil Co.'s No. 1 Fannie Noland, 2,600 ft. E and 1,580 ft. N of SW cor. Sec. 70.
Washing over stuck D.S.; T.D. 1,490 ft.

CAMERON PARISH

Texas Co.'s No. 1 Jessen, 1,170 ft. E and 550 ft. N of C Sec. 24-14s-10w.
Drlg. shale 3,974 ft.

JEFFERSON DAVIS PARISH

George W. Strake's No. 1 Calcasieu Natl. Bank, 200 ft. S and E of NW cor. SE NE Sec. 12-9s-6w.
T.D. 8,091 ft.; P.B. to 7,550 ft.; drlg. shale 7,910 ft.

JEFFERSON PARISH

Texas Co.'s No. 1 Bayou St. Dennis, 20,907 ft. S, 4,853 ft. E of NW cor. of Twp., Sec. 19-17s-24e.
Drlg. sand 6,847 ft.

LAFOURCHE PARISH

Southern Sulphur Corp.'s No. 1 D. L. Lagraize, 800 ft. E of NW cor. of Lot 7, thence 250 ft. S of Sec. 26-21s-22e.
Spudded and shut down.

PLAQUEMINES PARISH

Venice Corp.'s No. 1 Burras.
Drlg. lime 2,040 ft.

RAPIDES PARISH

J. B. Evers' No. 1 G. Wettermark, 540 ft. S and 520 ft. E, NW cor. NE SW Sec. 35-6n-2e.

C. D. Loe's No. 1 Barrett, 330 ft. NW of SE line and 880 ft. NE of SW line of Sec 40-5n-1w.
S.D. 3,500 ft.

Williams-Terrell & Day's No. 1 Armstrong & Murphy, 286 ft. N and 360 ft. W of SE cor. Sec. 24-5n-1w.
Moving in rig.

ST. BERNARD PARISH

Danciger's No. 1 Battles, 836 ft. N, 2,198 ft. W of SE cor. Sec. 135-14s-14e.
Cmtd. csg.; moved off rig; T.D. 6,001 ft.

ST. MARTIN SURVEY

Texas Co.'s No. 1 State-Plumb Bob, 3,107 ft. E and 2,154 ft. N of SW cor. Sec. 9-8s-7w.
20-in. csg. at 101 ft.

TANGIPOHA PARISH

R. A. Conklin's No. 1 Lake Superior Piling Co., 200 ft. W and N of SE cor. Sec. 19-5s-9e.
S.D. 850 ft.

VERMILLION PARISH

Moore Bros.' No. 1 Brussard, 350 ft. S of N line, 250 ft. E of W line, NE cor. Sec. 32-11s-3e.
S.D. 4,056 ft.

La.-Ark. Wildcats

(Continued from Page 68)

Crescent Drlg. Co.'s No. 3 Garner, Sec. 3-7-11.
Rig moved; location.

M. T. Hines' No. 1 J. B. Hill, SW NE Sec. 4-6-11.
Set 10-in. 41 ft.

Helena Oil & Gas Co.'s No. 1-B Graham, 330 ft. S and W NE cor. NE NW Sec. 20-9-13.
S.D. 2,000 ft.

Lawson-Leavell's No. 3 Bank of P. H., 330 ft. S and E, NW cor. NW NE Sec. 29-9-13.
Comp.; flowing 20 bbls.; 1,607 ft.

Lawson-Leavell's No. 1 Whitney Corp., 330 ft. N and E, SW cor. NE SW Sec. 5-9-13.
Testing 3,100 ft.

Jack Lent's No. 1 Williams, Sec. 13-7-11.
S.D. 950 ft.

Dave McConnell's No. 1 Whiting Corp., Sec. 3-9-13.
Bailing to test 1,956 ft.

Strickland et al's No. 1 Whitney Corp., Sec. 32-10-12.
Recmt. 8-in.; T.D. 1,590 ft.

TENSAS PARISH

Schumacher, tr.'s No. 1 Curry, Sec. 39-11-12e.
Abd.; will not deepen; 3,750 ft.

UNION PARISH

Carbons Con.'s No. 3 fee, C NW NW SW Sec. 35-22-3e.
Comp.; gauged 1,500,000 ft. gas; 2,170 ft.

Southern Carbon Co.'s No. 66 fee, 660 ft. S, 1,980 ft. E, NW cor. Sec. 5-20-4e.
Derrick.

ARKANSAS

ARKANSAS COUNTY

Grand Prairie Realty Co.'s No. 1 Fischer, 200 ft. S and E, NW cor. NE NW Sec. 6-6s-4w.
S.D. 3,120 ft.

ASHLEY COUNTY

J. D. Houseman et al's No. 1 Boreine Farms, 660 ft. S and W, NE cor. Sec. 1-18-8.
Rigging up.

HEMPSTEAD COUNTY

A. H. Bagnelle's No. 1 Trattner & Rhinehart, Sec. 2-13-26.
S.D. 1,992 ft.

LAFAYETTE COUNTY

W. H. Harvey's No. 2 Allen, Sec. 18-19-24.
S.D. for fuel 1,500 ft.

Kamon & Neely's No. 1 Cockran, NW cor. SE SW Sec. 26-19-25.
S.D. 2,275 ft.

Riggs Bros.' No. 1 Dubose, SE cor. SW NW Sec. 35-15-24.
S.D. 1,000 ft.

LONOKE COUNTY

J. G. Strahan's No. 1 Hardin, Sec. 18-2s-7w.
S.D. 1,730 ft.

MILLER COUNTY

Ed Donohue's No. 2 Beck, Sec. 33-15-26.
Set 10-in. 140 ft. in new hole.

Duluth-Ark. Oil Co.'s No. 4 Beck, SE cor. SE SW Sec. 34-15-26.
W.O.S.R. 2,941 ft.

M. D. K. Fitzwater's No. 1 E. H. Beck, 150 ft. N and E, SW cor. NW SW Sec. 34-15-26.
Moving in rig.

Fitzwater et al's No. 1 Norson, SW cor. SE SW Sec. 20-15-27.
S.D. 3,177 ft.

King Oil Corp.'s No. 1 C. H. Schroder, 200 ft. N, 330 ft. E, SW cor. SW NE Sec. 24-14-28.
S.D. 3,167 ft.

King Oil Corp.'s No. 1 Anderson, 350 ft. E, 200 ft. S, NW cor. SW NE Sec. 16-14-27.
S.D. 1,723 ft.

C. V. Lenz' No. 6 Dale, 273 ft. N, 430 ft. E, SW cor. SE NW Sec. 24-15-26.
Set 10-in. 208 ft.

A. C. Roan's No. 1 Frost Est., 150 ft. N and W, SE cor. SE SW Sec. 8-15-26.
Set 10-in. 120 ft.

Lee Timberlake's No. 1 Frost Est., 330 ft. N and E, SW cor. SW SE Sec. 27-15-26.
Drlg. 2,520 ft.

OUACHITA COUNTY

F. A. Book et al's No. 1 Arnold, Sec. 24-15-16.
S.D. 2,032 ft.

S. J. Carnes' No. 1 L. Caldwell, 330 ft. S and E, NW cor. Sec. 12-14-19.
Coring 1,262 ft.

T. J. Gaughan's No. 1 J. Humphrey, 330 ft. N and E, SW cor. NE NE Sec. 30-13-17.
Set 13½-in. 63 ft.; drlg. 900 ft.

Kraft Oil Corp.'s No. 1 Rath & Cartier, 330 ft. S and E, NW cor. SW SW Sec. 32-13-17.
S.D. 1,448 ft.

J. D. Reynolds' No. 1 M. Bragg, 330 ft. N and E, SW cor. NW SE Sec. 25-13-18.
T.A. 1,392 ft.

UNION COUNTY

Alice-Sidney Oil Co.'s No. 1-B E. F. Gregory, 330 ft. N and W, SE cor. NW SW Sec. 10-17-14.
Drlg. 3,170 ft.

J. E. Crosbie, Inc.'s No. 1 W. E. Gregory, 330 ft. S and E, NW cor. NE Sec. 15-17-14.
T.A. 3,503 ft.

J. E. Crosbie, Inc.'s No. 2-A E. F. Gregory, 330 ft. N and E, SW cor. NE SW Sec. 10-17-14.
Set 7-in. 3,343 ft.

Gardy Drlg. Co.'s No. 1 Craig, Sec. 35-17-15.
Set 7-in. 2,120 ft.; T.D. 2,200 ft.

Gulf Ref. Co.'s No. 49 L. Werner, 4,620 ft. N, 60 ft. E, SW cor. Sec. 5-16-16.
Drlg. 2,122 ft.

Reuter Oil Co.'s No. 2 Vines, NW cor. SW SE Sec. 29-18-14.
D.D. to 2,216 ft.; W.O.S.R.

H. L. Hunt's No. 15 E. F. Gregory, 330 ft. N and W, SE cor. Sec. 10-17-14.
Drlg. 5,462 ft.

H. L. Hunt's No. 18 E. F. Gregory, 330 ft. N and E, SW cor. Sec. 11-17-14.
Derrick.

Mrs. R. K. Jones et al's No. 1 Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14.
Set 7-in. 2,746 ft.; T.D. 2,765 ft.

Lion Oil Ref. Co.'s No. 6 H. L. Rowland, 330 ft. S and W, NE cor. Sec. 15-17-14.
T.A. 3,427 ft.

Marine Oil Co.'s No. 7-A W. B. Thompson, 330 ft. N and W, SE cor. SW SE Sec. 3-18-13.
Rigged up and S.D.

Joe Modisette's No. 1 Hill, Sec. 6-18-13.
Set 13½-in. 152 ft.

Joe Modisette et al's No. 1 D. S. Sturdevant, 330 ft. N and W, SE cor. Sec. 6-18-13.
Set 13½-in. 188 ft.

C. E. Murdock's No. 1 R. Pumphrey, C SW NW NE Sec. 11-17-14.
Derrick.

Reuter Oil Co., Inc.'s No. 1 J. L. Kinard, 330 ft. S and E, NW cor. SE NW Sec. 32-18-14.
Pumping 2,139 ft.; no gauge.

Geo. L. Pace's No. 1 Union Saw Mill Co., 330 ft. S and W, NE cor. NE SW Sec. 24-18-13.
Dry and abd. 3,614 ft.

Grady Vaughn's No. 1 T. B. Rowland, 330 ft. S and E, NW cor. Sec. 14-17-14.
Derrick.

MISSISSIPPI

AMITE COUNTY

Mineral Resources, Inc.'s No. 1 Anderson, C NE NW Sec. 14-3n-3e.
S.D. 550 ft.

BOLIVAR COUNTY

White & Jones' No. 1 Ballou, SE SE NW Sec. 17-24n-7w.
S.D. 20 ft.

CLARKE COUNTY

Clarke County Oil Co.'s No. 1 Dora Butler, C SW SW Sec. 15-2n-16e.
Set 10-in. 63 ft.

HARRISON COUNTY

Big Ridge Oil Co.'s No. 1 Hinzin, NE Sec. 13-7s-10w.
S.D.; W.O. 1,100 ft.

HINDS COUNTC

Bob Weaver's No. 1 T. Russell & Oparka, C NW SW NE Sec. 26-6n-1e.
Rigging up.

ISSEQUENA COUNTY

Pelican Oil & Gasoline Co.'s No. 1 Martin & Bender, 300 ft. S and E, NW cor. Sec. 11-12n-8w.
S.D.; curing titles, 3,227 ft.

JONES COUNTY

Snow-Black Pet. Co.'s No. 1 Fox, 400 ft. N, 750 ft. W, SE cor. SE SW Sec. 30-7n-12w.
Rigging up.

LAUDERDALE COUNTY

Bob Dalton's No. 1 Bounds, Sec. 34-7n-15e.
Set 10-in. 560 ft.; S.D.; W.O.

MONROE COUNTY

P. J. McAlpine's No. 1 Frank Rye, Sec. 15-15s-17w.
S.D. 2,910 ft.

P. J. McAlpine's No. 1 Crook, 1,090 ft. S 90 ft. W, NE cor. Sec. 15-13s-13w.
Drlg. 1,890 ft.

WALTHALL COUNTY

Mutual O. & G. Co.'s No. 1 Boyd, SW cor. SW SE Sec. 24-2n-9e.
Partly rigged up and S.D.

WARREN COUNTY

H. W. Elliott et al's No. 2 R. L. Parker, 780 ft. E, 1,570 ft. S, NW cor. Sec. 14-14n-1e.
Set 7-in. 820 ft.

WASHINGTON COUNTY

Perkins & Dees' No. 1 Lee, 1,500 ft. E, 500 ft. N, SW cor. Sec. 33-16n-3w.
Set 10-in. 300 ft. and S.D.

WINSTON COUNTY

Jack Vale et al's No. 1 Moody, 713 ft. N, 667 ft. E, SW cor. NW SW Sec. 3-13n-14e
Drlg. 975 ft.

La.-Ark. Proven Fields

NORTH LOUISIANA

CADDO—BLANCHARD

M. Segall's No. 5 Sharpe, Sec. 11-18-16.
Rigged up and S.D.

CADDO—RODESSA

United Gas. Pub. Ser. Co.'s No. 1 Fosque Unit, 1,320 ft. N and E, SW cor. Sec. 28-23-16.
Drlg. 4,472 ft.

United Gas Pub. Ser. Co.'s No. 1 Johnson Unit, 1,245 ft. S, 1,365 ft. W, NE cor. Sec. 26-23-16.
Set 16-in. 191 ft.

SABINE PARISH—ZWOLLE

Alexander & Crane's No. 1 Fogman, SE cor. N½ SW NE Sec. 18-7-11.
Set 6-in. 2,373 ft.

Ivan A. Allen's No. 1 La. Long Leaf, 330 ft. N and W, SE cor. NW SE Sec. 12-7-11.
S.D. 2,120 ft.

H. C. Maulding's No. 1 Davis, 350 ft. N and W, SE cor. NE NE Sec. 2-7-11.
Rigging up.

H. C. Maulding's No. 2 DeLatin, 330 ft. S and E, NW cor. NE SE Sec. 3-7-11.
S.D. 2,250 ft.

K. C. Peterson et al's No. 1 Bowman-Hicks 330 ft. S and E, NW cor. SW NW Sec. 3-7-9.
Derrick down.

Tex.-La.-Ark. Oil Co.'s No. 1 Pickering Lbr. Co., Sec. 3-3-12.
S.D. 2,742 ft.

EAST TEXAS (BORDER COUNTIES)

HARRISON COUNTY

R. C. Payne et al's No. 1 Lowery, E. D Spain Sur.
P.B. to 3,524 ft.

MARION COUNTY

Ed S. Holman's No. 1 Henderson, R. Bennington Sur.
Drlg. 2,815 ft.

PANOLA COUNTY

R. W. Price's No. 1 Crawford, J. A. Williams Sur.
Set 10-in. 64 ft.

Fred Stovall Drlg. Co.'s No. 1 H. D. Ivey, P. Martin H.R.S.
S.D. for csg. 1,980 ft.

Thomason Drlg. Co.'s No. 1 Cadenhead, Jas. Smith Sur.
Drlg. 2,610 ft.

SHELBY COUNTY

Cliff Stovall's No. 1 Pickering Lbr. Co., C H. Patterson Sur.
S.D.; rig repair, 1,485 ft.

O. P. Bush, trustee's No. 1 Pickering Lbr. Co., P. W. Harvey Sur.
S.D. 730 ft.

ALABAMA

COVINGTON COUNTY

Geometer Prod. Corp.'s No. 1 Culbreath, SW cor. SW NE Sec. 8-2n-14e.
Drlg. 3,450 ft.

HOUSTON COUNTY

Rice O. & G. Co.'s No. 1 Oakley est., SE cor. NW SW Sec. 9-3n-29e.
S.D.; W.O. 2,506 ft.

LAMAR COUNTY

DeSoto O. & G. Corp.'s No. 1 Gardner, Sec. 23-15s-16w.
S.D. 4,182 ft.

WALTON COUNTY—FLORIDA

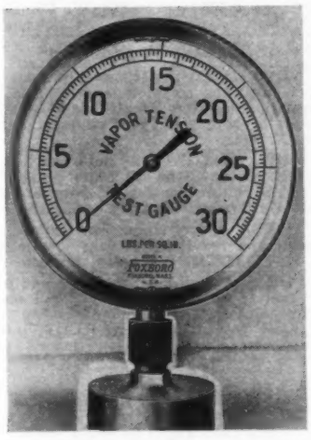
Geometer Oil Corp.'s No. 2 Walton Land & Timber Co., Sec. 10-1s-19w.
Rigging up.

NEW AND IMPROVED EQUIPMENT

Valuable Features in New Vapor Tension Test Gauge

Unusual features are incorporated in the vapor tension test gauge brought out by the Foxboro Co., Foxboro, Mass. Each dial is calibrated to its individual spring and the company says these gauges will have an accuracy of one-half of 1 per cent of the total scale at any point.

To insure continuously accurate readings in a gauge of this type, it is necessary at times to make adjustment to compensate for changes in atmospheric temperature and other upsetting conditions. This is accomplished in the new Foxboro gauge by an adjustable dial. Two screws placed in slots hold the dial in place. To reset the zero point the operator simply loosens the two screws, turns the dial to the correct position and then tightens the screws. The entire operation takes only a few seconds. This method of recalibration removes all danger of injuring delicate parts of the gauge since the slotted dial makes it unnecessary to touch the pointer at all.



Further to insure accuracy, the gauge is equipped with a movement that is light yet durable. The Bourdon spring and all movable parts are made of bronze, heavily cadmium-plated for protection against moisture, corroding fumes and vapors. An Everdur hair spring affords further protection.

The gauge is mounted in a buffed brass case. The glass is held in the ring by a heavy vellumoid gasket secured by a retaining ring. A second gasket inside the connection makes the gauge waterproof. A square, rust-proof steel connection simplifies mounting and dismounting from the bomb and protects the gauge from frequent twisting strains.

GUARDS AGAINST EXPLOSION

The explosion-proof lighting fixture recently placed on the market by the Benjamin Electric Manufacturing Co., Des Plaines, Ill., is designed to meet the Underwriters' Laboratories requirements for installation in Class 1, Group D hazardous locations — atmospheres containing vapors of gasoline, naphtha, petroleum, alcohol, acetone, lacquer solvents and natural gas. All parts of the fixture have ample strength to withstand the tremendous pressures of internal explosions without breaking down or permitting flame, hot gases or sparks to escape and ignite the surrounding atmosphere. A unique cover-holding ring makes inspection and relamping easy. The design of glass cover and holding ring is such that the necessity of a guard to protect the glass is eliminated, more uniform illumination is possible and the glass is readily cleaned.

Among the Equipment Houses

The Jarecki Manufacturing Co., Erie, Pa., with branches throughout the oil regions, has opened a new store in Russell, Kans. Jess Hunt, transferred from the Eldorado, Kans., store, is field salesman, and Gene Hollis, transferred from Borger, Tex., is store manager.

—

D. W. Haering & Co., Inc., water consultants, Chicago, have removed their Detroit office to the Fisher Building and appointed Franklin W. Murray district manager.

—

The Manhattan Rubber Manufacturing Division of Raybestos-Manhattan, Inc., Passaic, N. J., has been granted patents for its Condor compensated belt. By virtue of its construction, ply stresses are equalized when the belt flexes around the pulley.

—

Ray P. Tarbell has been appointed manager of the welding division of the Ideal Electric & Manufacturing Co., Mansfield, Ohio.

—

At its recent meeting in St. Louis, Mo., the Heat Exchanger Section of the Heat Exchange Institute discussed a tentative report of the section standardization committee. Representatives of the following member companies were present: Alco Products, Inc., C. F. Braun & Co., Inc., Foster Wheeler Corp., Griscom-Russell Co., M. W. Kellogg Co., Ross Heater & Manufacturing Co., Westinghouse Electric & Manufacturing Co. and Whitlock Coil Pipe Co.

—

Westerly Supply Co., Wink, Tex., which recently purchased the machine shop building formerly owned by the Oil Well Supply Co., at McCamey and moved it to Wink, is now installed in its larger store. Sam Weiner is president.

—

The Pittsburgh Equitable Meter Co. and subsidiary, Merco Nordstrom Valve Co., have moved their Kansas City, Mo., district office to 1805 Bryant Building. C. R. Zeckey is district manager.

—

W. F. Gradolph was elected vice president in charge of sales of the DeVilbiss Co. He has been with the company 24 years.

—

The Oil Conservation Engineering Co., manufacturer of Oceco tank fittings and refining specialties, has adopted the name of its parent organization and is now called the Oceco Division of the Johnston & Jennings Co., sharing the same plant at 877 Addison Road, Cleveland, Ohio, and having the same officers.

Men Well Known in the Equipment Field

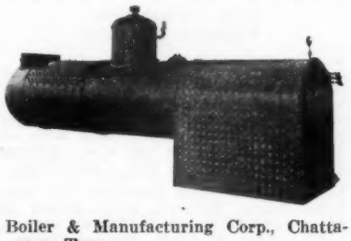
Oil Center Tool Co., Houston, Tex., has added Clyde Graham to its sales force in the Gulf Coast territory. Mr.

CLYDE GRAHAM

Graham is well known through the fields of Texas and Louisiana, having been identified with the oil industry since 1919, when he began roughnecking for Humble Oil & Refining Co. He represented Lucey Products Corp. in the Gulf Coast several years, and went to O-C-T from the Circle "W" Oil Co.

Rivetless Firebox Feature of New Oil County Boiler

Lucey Products Corp. Tulsa, announces the new Lucey oil country boiler with rivetless firebox, manufactured by Lucey Boiler & Manufacturing Corp., Chattanooga, Tenn.



Although it includes several new ideas in boiler construction, the greatest feature is the elimination of rivets from the firebox wrapper. By welding the firebox wrapper all around, all overlapping joints and rivets are eliminated, allowing the wrapper to be of uniform thickness throughout, permitting even heat transfer.

The new boilers have 84-inch long firebox, of the open or dry-bottom type. The mud ring is tested carefully, caulked, then welded throughout.

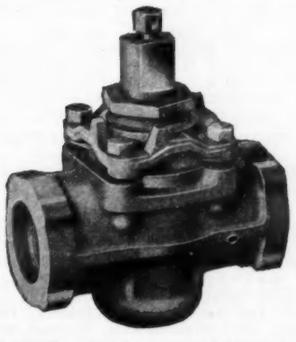
The manhole is located directly over the firebox tube ends instead of ahead of the dome. The tube ends, where most scale and foreign matter collect, are thus made easily accessible for cleaning.

Although rated by the manufacturers on the standard basis of 1 horsepower to each 10 square feet of heating surface (based on area exposed to products of combustion) it is asserted that owing to added efficiency gained from features of design, 1 horsepower to 8 square feet of heating surface would be a more equitable rating for these new boilers.

Other features and details of construction may be obtained by writing the Lucey Products Corp., Tulsa.

Merco Nordstrom Offers New Line of Plug Valves

The Merco Nordstrom Valve Co., subsidiary of the Pittsburgh Equitable Meter Co., announces a redesigned line of semisteel, 500-pound working pressure, Nordstrom lubricated plug valves. These valves can be furnished in sizes from one-half to 4 inches inclusive, wrench-operated, having either flange or screw connections. In the latter case Briggs standard thread, A.P.I. line pipe thread or A.P.I. tubing thread can be supplied.



Bulletin V-104 giving complete information regarding this line can be obtained by addressing the Merco Nordstrom Valve Co., 400 North Lexington Avenue, Pittsburgh, Pa.

—

Link-Belt Co., New York, has appointed General Supply Co., S.A., Calle Balderhas No. 56-58, Mexico. D.F., as its stock-carrying distributor of conveying and power transmitting machinery in the Federal District and the State of Mexico. General Supply, established 30 years ago, is headed by Albert Isaac, president, and K. O. Nellen, manager.

Lincoln Offers Electrode to Hardface Cutting Edge

A new arc welding electrode designed to restore cutting edges on tools of all kinds and said to permit savings of 20 to 25 per cent in tool cost is announced by the Lincoln Electric Co., Cleveland, Ohio. With this new electrode, "Toolweld," lathe tools, bits, milling cutters, drills, cutting and forming dies and all other tools which have become worn in service can be given a new and harder cutting edge. Tools can be refaced an unlimited number of times. Also new tools using ordinary steel in place of high speed steels can be provided with a cutting edge at large savings.

"Toolweld" electrode provides a deposit which is equivalent to high-speed tool steel, and has the advantage of retaining its hardness (55 to 65 Rockwell C) under relatively high temperatures, up to approximately 1,000° F.

In a recent experiment a tool faced with this electrode was placed in a machine alongside a regular tool and used in turning down 20 shafts of motor generators. With the tool faced with "Toolweld" 14 shafts were turned to a depth of three-sixteenths inch, the length of cut being 15 inches. Using the ordinary tool steel, 12-inch cuts three-sixteenths inch deep were made on six shafts. In both cases, the operating speed was 117 revolutions per minute.

Inspection of the two tools at the end of the test showed that the one faced with "Toolweld" had a square, sharp edge, whereas the cutting edge of the ordinary tool steel had become rounded off.

Oklahoma Fields

(Continued from Page 77)

Section 30-2-7, flowed 741 bbls. in two others' No. 7 Hardin (twin), SE NW SW hours through casing with gas at the rate of 3,000,000 feet per day.

New work started in the Fitts Pool in the past week included Magnolia Petroleum Co.'s No. 2 Schaffer, SW SE NW Section 25-2-6, cellar and pits; W. A. Delaney and others' No. 1 G. Smith, NE SE SE Section 26-2-6, cellar and pits; Magnolia Petroleum Co.'s No. 1 Simpson, SW SE NE Section 29-2-7, location; Carter Oil Co.'s No. 10 Richards, SW SW SE Section 30-2-7, building rig; same company's No. 11 Richards, SE SW SE Section 30-2-7, location; W. A. Delaney and others' No. 5 Hardin, SW NW NW Section 30-2-7, location; Carter Oil Co.'s No. 1 Julia Smith, NW NE NE Section 31-2-7, and No. 2, NE cor. Section 31-2-7, locations.

W. A. Delaney and others' wildcat test, No. 1 Diamond, NW NW SE Section 5-1n-8, Coal County, has been abandoned. It had sulphur water at 2,656-72 feet. Bromide was topped at 2,130 feet. The first sand at 2,170-77 feet showed water with a smell of sulphur. Second sand lay at 2,300 feet and McLish at 2,393 feet. Sands were found at 2,420 feet, 2,465-75 feet, 2,530-83 feet, and 2,656-72 feet total depth.

In Pontotoc County, outside the Fitts Pool, and its nearby wildcat area, there was little doing in the course of the week. Dixon Petroleum Co.'s No. 1 Walker, SE SW NE Section 21-5-6, was dry and abandoned at 2,796 feet, finishing 9 feet in Sylvan shale.

Texhoma Oil Co.'s No. 1 Butler, NE SE NE Section 20-5-8, had a hole full of water at 1,360-65 feet and was abandoned.

Fleetborn Oil Corp. made a location for No. 1 Oliver, NE NW SE Section 21-4-5. Kennedy and Horner were rigging up No. 1-A Chapman, NE SE Section 8-6-8, in Hughes County.

In the Altus Field

Gypsy Oil Co.'s No. 1 Edwards, SE SE SE Section 3-1n-20w, Altus Field, Jackson County, was acidized in lime at 1,663-67 feet and got no recovery. It was shot with 7 quarts at 1,653-67 feet and swabbed 28 bbls. of oil in 12 hours.

Gypsy Oil Co.'s No. 1 Hensley, NE NE NW Section 10-1n-20w, was drilled to 1,858 feet and given an acid treatment at 1,800-51 feet with no recovery. It will be plugged back to granite wash and completed. It had a 50-bbl. showing at 1,371-1,406 feet and had 3,000,000 feet of gas at 1,360-71 feet. It also had a pumper from sand at 1,041-88 feet.

Other Southern Fields

Henry Rosenthal and others' No. 1-B Au-che-re-ah, NW NW NW Section 5-1n-9w, Stephens County, filled 300 feet with fluid from sand at 1,479-95 feet but the hole bridged at 1,470 feet. The operation, a wildcat, was shut down.

Completions in other southern fields included the following wells:

Farlyn Oil Co.'s No. 29 Seay, 1,480 feet south and 1,530 feet east of C Section 3-7s-5w, Jefferson County, a 35-bbl. pumper from a sand series at 1,041-88 feet.

Lish Brothers' No. 1 Crosbie, SW cor. Section 23-1s-5w, Stephens County, a 6-bbl. well at 635-50 feet.

New work started in the southern counties include Shell Petroleum Corp.'s No. 46 Franklin, 464 feet south and 1,013 feet west of NE cor. Section 8-4s-3w, Carter County, machine rigging up; same company's No. 47 Franklin, NE cor. NE SW NE Section 8-4s-3e, machine, drilling at 40 feet; Howard Chamberlain's No. 2 Johnson-McGill, SW NE SW Section 17-4s2w, Carter County, a rig; Tucker & Clowe's No. 1 Woodworth, NW cor. NE NW Section 20-4s-2w, machine rigging up; George L. Pace's No. 6 Gilworth, 330 feet from north and 150 feet from east lines of NW quarter Section 2-2s-8w, Stephens County, drilling at 1,322 feet. L. Loper and others' No. 1 Conrad, NE cor. Section 35-1s-19w, Tillman County, machine rigging up (correction).

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FOR QUICK sale, offer fee and mineral, 140 acres, Rogers County, Oklahoma, 440 foot production, 11 small wells, need cleaning, engine, pumps, tanks, connected with Sinclair Prairie. Abstract furnished. H. T. Zuzak, Boonville, Mo.

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Figuratively to be the Middle Ground Between fastly depleting Oklahoma and HIGH PRICES EAST TEXAS
CALIFORNIA ROYALTIES — only twenty-four hours Air Mail Distance from Eastern Seaboard, Practical field, Geological and Engineering Service and Legal Opinion. Can ship draft attached to responsible dealer. We solicit exclusive connection with reliable house. P. O. Box 1175, Los Angeles, California.

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HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood, P. O. Box 2261, Tulsa, Okla.

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Sell in the most active area in the United States—The Permian Basin of West Texas and Southeastern New Mexico. From the standpoint of royalty investors this area has much to offer. Can supply you with choice non-producing royalties located on geophysical highs. Also drilling blocks, close in acreage to production, or wildcat leases. I maintain my own field men who cover this area for me. Complete set of Forms and Reports for filing with Securities and Exchange Commission accompanies every order. Inquiries invited.
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Write for Details on $165,375.00 Registered royalty issue, which is now ready for sale to the public.
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WEST TEXAS—Ten acre royalty interest near drilling well, located in producing area, for one hundred dollars per acre base. Jones County fifty acre oil lease for ten dollars per acre. Address H. G. BAILEY, Box 644, Cisco, Texas.

Low priced leases Royalties near Permian Basin. Wildcats being drilled by Majors and Independents. 50 to 1 chances quick money. E Croft, Proctor, Texas.

HAVE FOR SALE, good producing royalties in Van and East Texas. Own and will sell twenty acre lease Upshur County, East Texas Field, offsetting well that came in January 24th making 1800 barrels a day. First well must be started within ninety days. Have for sale unproven royalty under major companies in line of development. $4.00 an acre. Rentals paying 6% on your money beside good speculative value. Will buy royalty in Texas and Oklahoma. Any amount. P. R. Knickerbocker 3237 Westminster, Dallas, Texas.

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Leases—Production

NEW MEXICO—My weekly scout report furnishes complete and reliable information on New Mexico developments. Send for copy. W. S. Patterson, Santa Fe, N. Mex.

NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

TREGO and Graham Co., Kansas, oil leases and royalties, at very low prices. J. E. LEADER, Wakeeney, Kansas.

FOR SALE oil and gas leases and production in shallow territory. Will make price on leases, drilling and casing one or more wells. W. P. HARLEY, Bowling Green, Kentucky.

WANTED
Drilling deals, portable, rotary and cable tools. The Green Oil Company, First National Bank Bldg., Albuquerque, New Mexico.

FOR SALE oil and gas leases, and production, in Ohio, and West Virginia. Some fine blocks of acreage, low rentals, long time leases, good market for gas, an opportune time to get into the natural gas business. WM. J. SNIDER, P. O. Box 253, Hundred, W. Va.

WANTED—Limited number lease and royalty dealers, brokers and salesmen to co-operate with sponsors in financing, through sale of leases, five thousand foot test on geologically and geophysically defined structure, Madison Parish, Louisiana. Excellent proposition for dealers capable of making quick distribution of their respective allotments; and a speculation of unusual merit for investors making commitments. Maps, prices and full information furnished upon request. SOUTHERN LAND & EXPLORATION CORPORATION
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NOTED GEOLOGIST has worked out structure in Northwest Alabama, on which he claims commercial production of oil and gas is a "lead-pipe cinch." For further particulars address F. P. BORDEN, Amory, Miss.

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5—1800 ft. Bartlesville sand and one 1500 ft. Prue sand wells, 640 acre lease, production 10 barrels daily, a number of good locations to be drilled. Also an oil sand at 300 feet. Description. Oklahoma, 34-21N 10E, estimated, salvage $8600.00. Price $5600.00.
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STORAGE Tanks — Bubble Towers, Worthington centrifugal hot oil pump, Blackmer Rotary Pump — Machine Shop equipment, including welding outfit 7 x 6 Sullivan Air Compressor, 400′ sectional loading rack, Union & Gardner Steam Pumps.

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To be held on the refinery grounds at Chanute, Kans.

10 A.M.
Monday, March 25, 1935

Complete plant of Altitude Petroleum Co.

Chanute, Kansas.

Equipment Includes:

5,000-Bbl. Skimming plant.

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100 Pumps—all sizes.

Approximately 30 miles of pipe lines, to be sold complete or in part.

All equipment in good condition.

All bidders required to deposit $2,500 cashier's check.

For other information or inspection see watchman at plant, or write

P. O. BOX 391,
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Same as new. Wall thickness 3/8 in.—head thickness 5/16 in.—Length 19 ft. 8 in. Diameter 4 ft. 2 in. Working pressure 150 pounds. Test pressure 300 pounds. Used until recently as gas receivers in a compression plant. Will sell individually or entire lot. Price slashed for immediate sale.

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OIL WELL Electric Motors rewinding our specialty. Picked up and delivered. Rawls Electric Works, Abilene, Tex.

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Number of plungers	4
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This unit, which is good as new, has a capacity of 222 barrels per hour at 48 strokes and 800 lbs. pressure.

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THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

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25 K.W. and 40 K.W. Gas Engines, 220 volts, D.C. Two 100 K.W. Gas Engine Generator Sets, 220 volts, D.C. 7x6 Ingersoll-Rand ER-1 Air Compressor. Six-inch Oster Pipe Threading Machine. Also, large stock of lathes, pipe machines, milling machines, etc. Send for our list. Terms to suit.

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WANTED—3,000 feet or more, both 12 and 15 inch casing. With or without threads and couplings. 16,000 feet cast iron water pipe, either 4 or 6 inch. Must be rock bottom prices as pipe will be moved on commission.

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Tulsa, Oklahoma.

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